



OUTDOOR RECREATION IN THE *National Forests*

FOREST SERVICE
U.S. DEPARTMENT OF AGRICULTURE
Agriculture Information Bulletin 301

OUTDOOR RECREATION IN THE NATIONAL FORESTS

- Resources
- Opportunities
- Activities
- Management
- Policy
- Programs
- Outlook

FOREWORD

The middle years of this decade have already been marked by a new wave of conservation throughout America. It is a creative conservation of restoration and innovation. Essentially, it seeks to protect and enhance man's opportunity to be in contact with natural beauty.

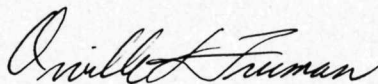
Thus, it is with special pleasure that we have prepared this publication. It is in the nature of a "state-of-the-forests" message on National Forest recreation. Here is an overall appraisal of the National Forest resources available for public enjoyment. Here is a description of recreational opportunities and a summary of resource management policies and programs. Here for perspective is the historical background and the outlook for the future. Here is a benchmark for reference as the Nation advances in outdoor recreation policy and development.

As the current Chairman of the President's Recreation Advisory Council, I am especially aware of the strength of the outdoor recreation movement that is sweeping our country. Several agencies within our Department have programs directed toward fitting recreation into balanced resource development and use. Many Federal, State, and other public and private agencies are working with us in this field. We are striving to accommodate the current and potential demand on public and private lands alike. We are working to accomplish this within the modern concept of resource conservation.

Recreation is only one of the many uses of our National Forests. Timber, livestock forage, wildlife habitat, and assured water supplies for cities and industries are among the resources used and managed concurrently. The increasing recreational load must be met along with increases in other demands upon the National Forests and National Grasslands. The need for farsighted development programs and more intensive management was never more evident than it is today.

In their 60th Anniversary Year, I congratulate the men and women of the Forest Service for their progress in making the National Forests truly America's Playgrounds.

September 1965



ORVILLE L. FREEMAN
Secretary of Agriculture

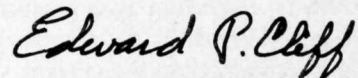
ACKNOWLEDGMENT

This review of outdoor recreation in the National Forests reflects the imprint of many dedicated men and women but bears the mark of one man more than any other. The span of his service in directing recreation resource management and development on the National Forests ranged from November 1939 until his retirement in July 1964—the critical formative years of present-day outdoor recreation in the National Forests. During that interval recreation use registered more than an eight-fold increase—from 14.3 million visits annually to 122.6 million. Cumulatively, these public forests registered more than a billion recreational visits during that period.

Under his guidance the renowned National Forest Wilderness System achieved form and substance.

New concepts, policies, and programs were hammered out and tested to guide and assist resource managers as they struggled to keep pace with the surging tide of recreational use. The results of "Operation Outdoors" and the recreation segments of "A Development Program for the National Forests" are monuments to his farsighted and effective leadership.

It is a pleasure and a privilege to dedicate this volume to John Sieker in partial recognition of his many accomplishments and contributions during 25 years as Director of the Forest Service's Division of Recreation and Land Uses. In the years to come millions of Americans will have more and better National Forest recreation experiences because John Sieker planned it that way.



EDWARD P. CLIFF, Chief
Forest Service



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I. SITUATION AND OUTLOOK

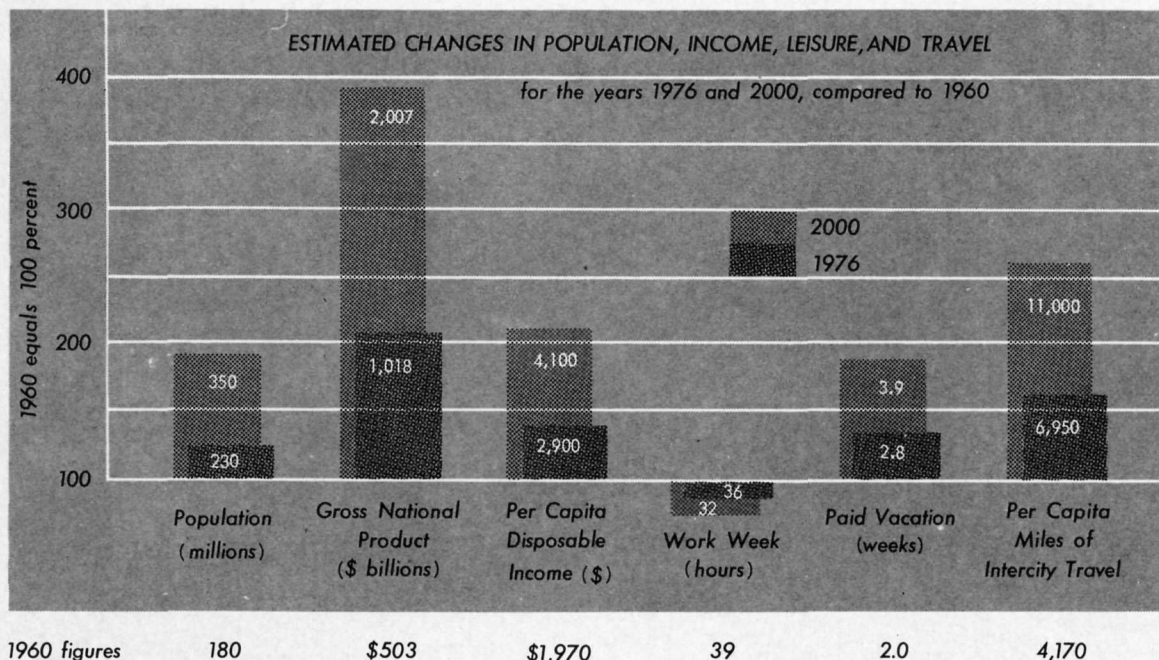
... Outdoor recreation in the National Forests is a part of the current boom in America. Trends in this use of these public lands pose an unmistakable challenge—there is an urgent need for accelerated action programs to meet rapidly increasing demands. If actions are shaped by the magnitude of the challenge, there is a solid basis for optimism ...

Background

As the Nation enters the mid-1960's there can be little doubt about the increasing significance of the outdoor recreation boom that has been so apparent throughout America during the past decade and a half. Firsthand evidence in the National Forests

during this period has registered the impact on these areas in no uncertain terms; and the upward trend of recreation visits continues unabated.

In many ways, this report is a counterpart to the reports published by the Outdoor Recreation Resources Review Commission in 1962. They provide a much-needed backdrop against which to view outdoor recreation in the National Forests.



SOURCES: Data for 1960 from National Recreation Survey (ORRRC Study Report 19). Projections for 1976 and 2000 estimated by ORRRC staff.

Figure 1.—Prospective changes in demand factors (source: Outdoor Recreation Resources Review Commission).

The Commission found decisive need for accelerated action programs to meet the rapidly expanding outdoor recreation needs of the American people. Their study revealed that the gap between demand and adequate supply of outdoor recreation resources and facilities will widen over the coming years if effective actions are not taken promptly (fig. 1). And they recognized a need for better planned, bolder, and more imaginative efforts.

As a result of prospective changes in population, income, leisure, and travel the Commission forecast that the overall demand for outdoor recreation in 1962 would be tripled by the year 2000. The pace of events is even faster on public lands. The volume of visits to the National Forests tripled between 1955 and 1964 (fig. 2).

Many basic facts developed by the Commission have significance for outdoor recreation in the National Forests. For example:

- "The kinds of outdoor recreation people take part in today are relatively simple."
- "Water is a focal point of outdoor recreation."
- "The recreation problem is not one of number of acres, but of effective acres."
- "What people now do for outdoor recreation is not necessarily what they want to do in the future."
- "As mobility continues to increase, more people will travel farther to enjoy outstanding scenic, wildlife, and wilderness areas."

The Commission's list of outdoor recreation activities ranked in order of their popularity gives clues to why National Forest recreation opportunities are appreciated and used by so many million American families (fig. 3).

The National Forest System

The National Forest System includes 154 National Forests, 19 National Grasslands, 14 purchase units and many smaller land utilization projects, research areas, and other properties. Their 186.3 million acres compose an area about as large as France and the United Kingdom combined. This extensiveness is a characteristic that should be kept in mind. The outdoor recreation opportunities encompassed by the National Forest System (fig. 4) are among the greatest natural heritages available for use by the American public.

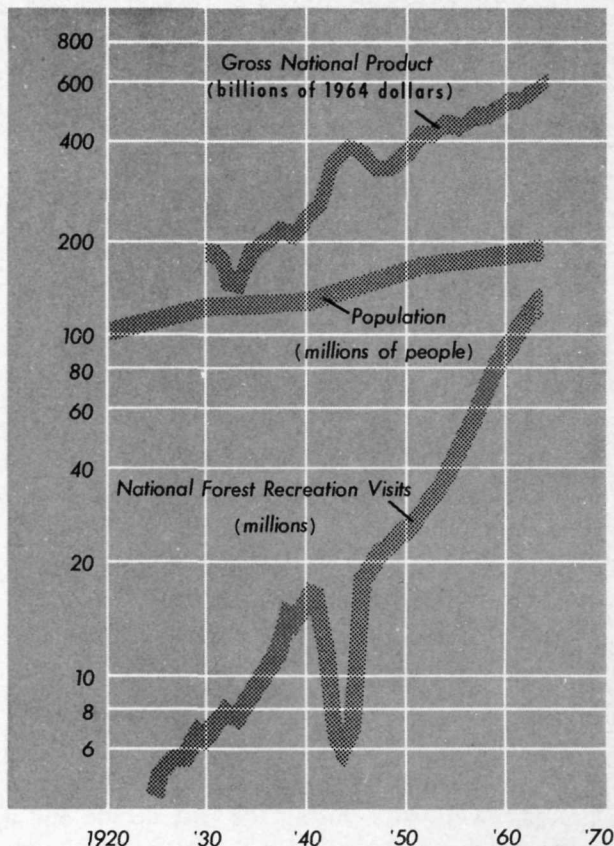


Figure 2.—National Forest recreation is increasing at a faster rate than either population or gross national product.

These lands and waters are productive. A steady stream of timber, forage, water, and other raw materials for commerce and agriculture adds strength to the Nation's economy. One measure of their productivity is the dollar receipts from timber harvesting, grazing, and other uses of the National Forests (fig. 5). Equally important but less tangible public benefits including recreation opportunity and wildlife flow from these same areas.

The National Forest System is extremely diverse. The resources and characteristics include almost every significant type of vegetation, climate, topography, soil, geology, and other natural feature found within the borders of the United States and Puerto Rico.

The resources themselves are protected and managed under a system of multiple use and sustained yields. Professional people of all kinds—timber and range specialists, hydrologists, and many others, along with specially trained and qualified assistants

NUMBER OF OCCASIONS OF PARTICIPATION IN OUTDOOR SUMMER RECREATION
1960 Compared With Projections for 1976 and 2000 (in millions)

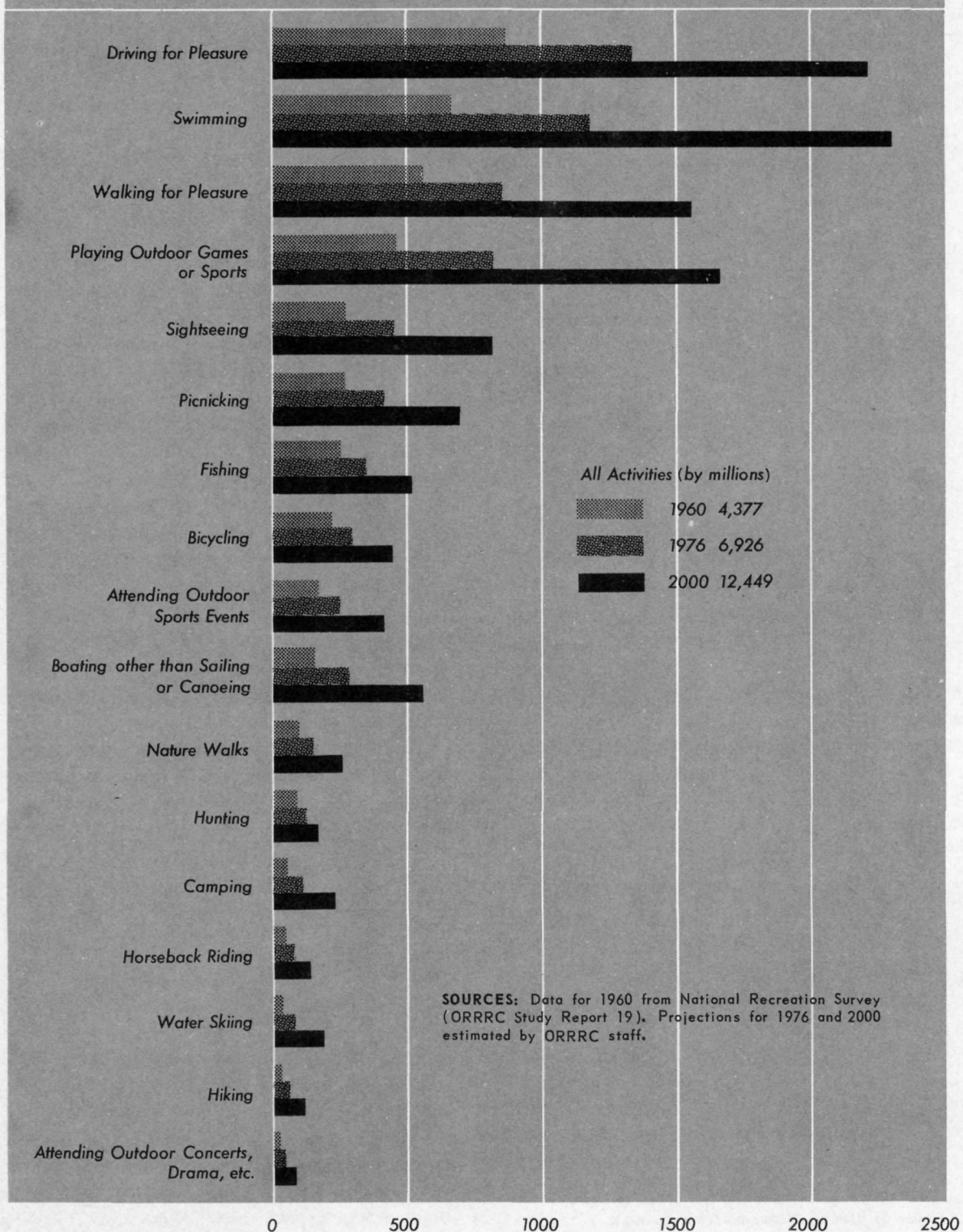


Figure 3.—Expected trends in popularity of various forms of outdoor recreation.

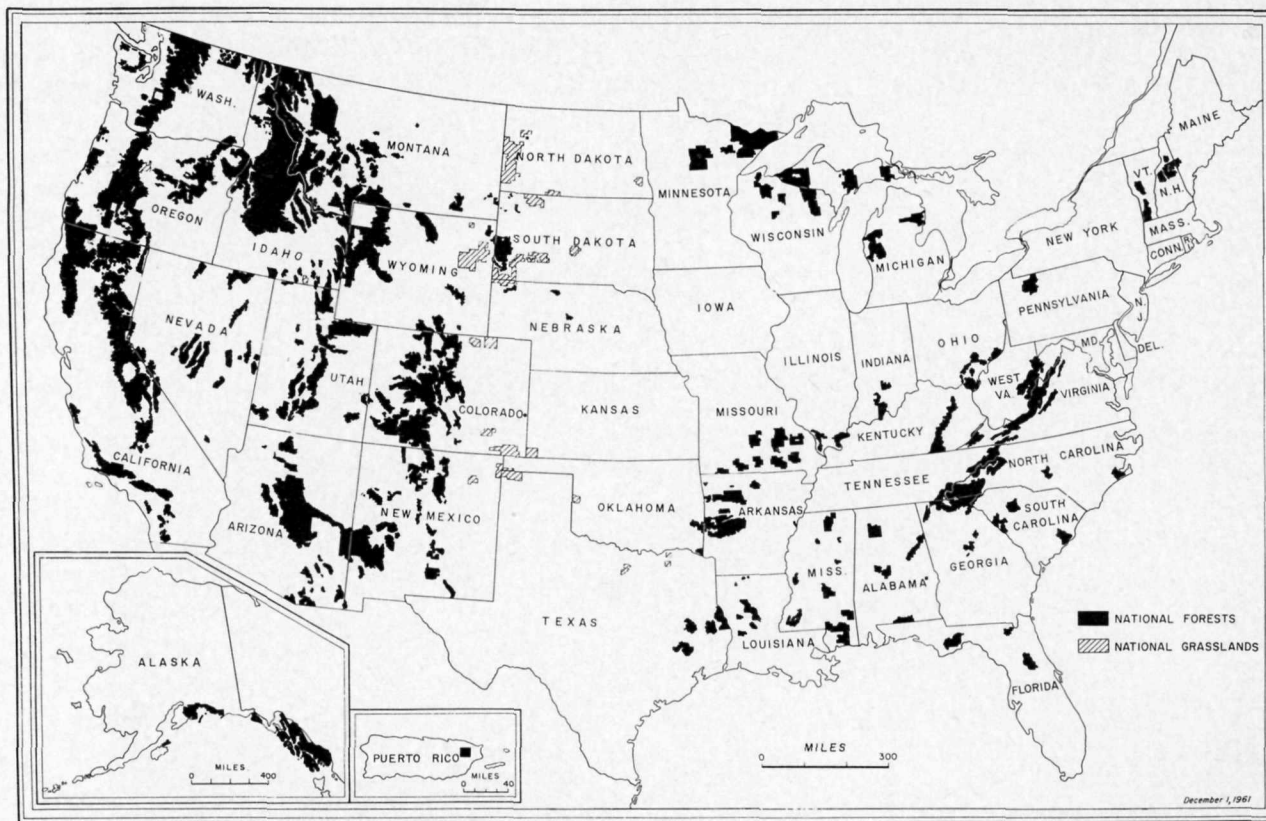


Figure 4.—The National Forest System.

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—plan the management, development, and use of the resources.

There are 173 individual operating units, National Forests and National Grasslands, within the system. Most of these are subdivided into Ranger Districts—about 820 management areas averaging some 225,000 acres in size. To provide decentral-

ized administration, the operating units are grouped under 10 Regions.

The Chief of the Forest Service and his staff are located in Washington, D.C. Organization and management are decentralized to the fullest practicable extent; Regional Foresters, Forest Supervisors, and District Rangers have been delegated wide authority. On-the-ground decisions by trained resource managers, acting within the framework of broad policy instructions, form the general pattern of administration.

Administration of the National Forest System is one of three distinctly different but related Forest Service responsibilities.

Forest Service research is concerned with the entire field of forestry and wild-land management, including the growth and harvesting of timber, protection of forests from fire, insects, and diseases, management of rangelands and wildlife habitat, forest recreation, watershed management, utilization of forest products, and forest economics. This re-

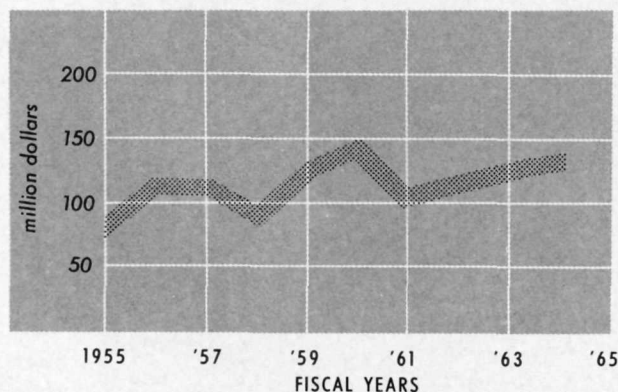


Figure 5.—Trend of National Forest receipts.



The Lake of the Woods Ranger Station of the Winema National Forest in southern Oregon.

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National Forest System Administrative Regions

| Region | Headquarters | National Forests | National Grasslands | Area owned by United States |
|----------------------|-----------------------|---------------------|------------------------|--------------------------------|
| | | <i>Number</i> | <i>Number</i> | <i>Million Acres</i> |
| 1. Northern | Missoula, Mont. | 16 | 3 | 26.0 |
| 2. Rocky Mountain | Denver, Colo. | 16 | 7 | 21.9 |
| 3. Southwestern | Albuquerque, N. Mex. | 12 | 6 | 20.5 |
| 4. Intermountain | Ogden, Utah | 18 | 1 | 30.8 |
| 5. California | San Francisco, Calif. | 19 | — | 19.3 |
| 6. Pacific Northwest | Portland, Oreg. | 20 | 1 | 24.0 |
| 7. Eastern | Upper Darby, Pa. | 7 | — | 4.2 |
| 8. Southern | Atlanta, Ga. | 30 | — | 9.8 |
| 9. North Central | Milwaukee, Wis. | 13 | 1 | 8.6 |
| 10. Alaska | Juneau, Alaska | 2 | — | 20.7 |
| Total | | ¹ 154 | 19 | ² 185.8 |

¹ Includes a National Forest in Puerto Rico.

² The National Forest System includes an additional 421,000 acres in purchase units, land utilization projects, and research and other areas.

search is performed at about 65 specialized and strategically located laboratories and experimental field areas under the Directors of 10 regional Forest and Range Experiment Stations, at the national Forest Products Laboratory in Madison, Wis., and at the Institute of Tropical Forestry in Puerto Rico. The research program deals with national and regional problems on private as well as public forest lands, and includes projects in cooperation with industries and other agencies. It also includes grant and contract research support to universities and others.

The third branch of responsibility relates to cooperative forestry programs concerned with the protection and multiple uses of some 450 million acres of State and private land. These multiple uses include recreation. The Forest Service as a cooperator with the State foresters urges the development of recreation-for-profit capabilities wherever possible to provide income for landowners and to assist in Rural Areas Development programs. The Forest Service gives support to the Soil Conservation Service, which has the primary responsibility in the Department of Agriculture for private recreational enterprises. In addition, cooperative programs of resource protection, technical services to landowners and others, reforestation, and general forestry assistance effectively combine State, private, and Federal efforts. In the 48 contiguous States, these programs apply to about 70 percent of all forest land (fig. 6).

The framework to guide decision making on the National Forests is well established. It includes specific policy definitions, resource inventories, detailed resource management and development plans, field procedural instructions, long-range development programs, supervision and inspection procedures, and coordination of actions. These are necessary to guide the wide variety of managerial actions required in the administration of a public property as large and complex as the National Forest System.

The objectives of National Forest management were established by the Secretary of Agriculture in 1905 in his letter to Chief Forester Gifford Pinchot. The objective now, as then, is to provide sustained yields of goods and services for the permanent good of all Americans through management and use of all National Forest resources. These lands are managed and used to meet this objective.

Recreation Opportunity

Specific recreation opportunities of many kinds in the National Forests are well known to millions of Americans. Those fortunate enough to live within easy reach have found virtually a "home-away-from-home" at some favorite campground, ski-lodge, or other facility or area. Others have explored the back country while hunting big game or traveling through wilderness areas. And every year new millions experience their first recreational use of the National Forests.

Personal participation characterizes most of the wide range of activities. Visitors physically engage in recreational pursuits ranging from stalking a bird with binoculars to scaling sheer rock cliffs.

Developed sites such as beaches, winter sports areas, picnic sites, campgrounds, organization camps, and visitor information centers occupy only a tiny fraction of the area of the National Forests. They serve, however, as focal points for half of the total number of man-days spent in National Forest recreation visits. Despite facility development programs resulting in a rapid increase in capacity, there is still a substantial gap between supply and demand. Developed sites are frequently overused on weekends and holidays; many recreation-seeking families are turned away or discouraged in their attempts to find a campsite or other facility.

Special recreation facilities on many National Forest sites are constructed and operated by private enterprise through special use permits and concessioner arrangements. Expensive ski-lifts and resorts, for example, are made possible by blending public resources and private capital.

Many recreational facilities are constructed on private lands intermingled with National Forest lands. The surrounding public lands and waters are often the prime attraction for organization camps, hunting lodges, marinas, motels, ski resorts, and other facilities.

The beneficial effect of tourism and other related activities on local economies is well established. National Forest recreation provides a large share of the economic development and growth in many rural areas. For example, sportsmen visiting the National Forests to hunt and fish often rely on farmers or other private sources for accommodations.

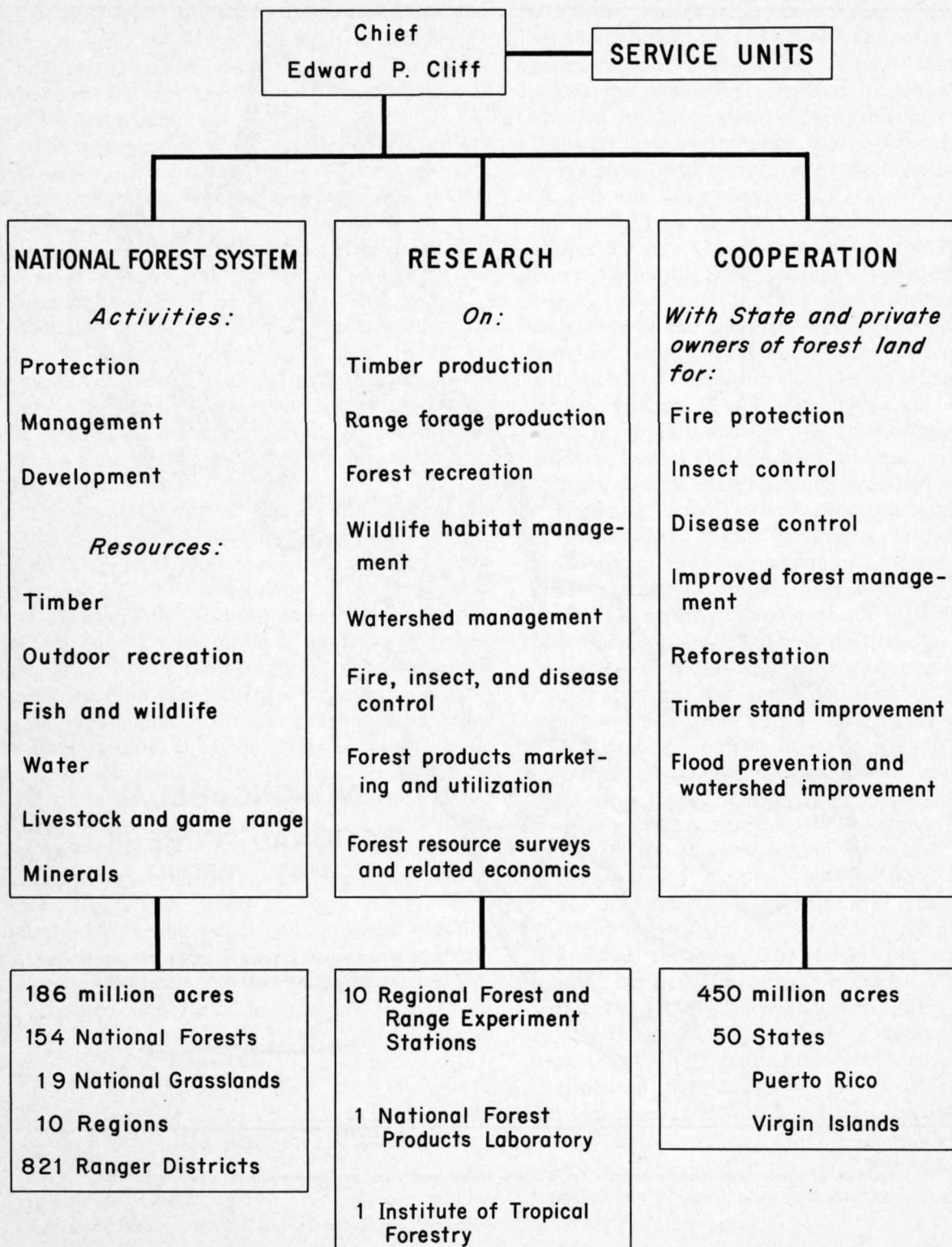
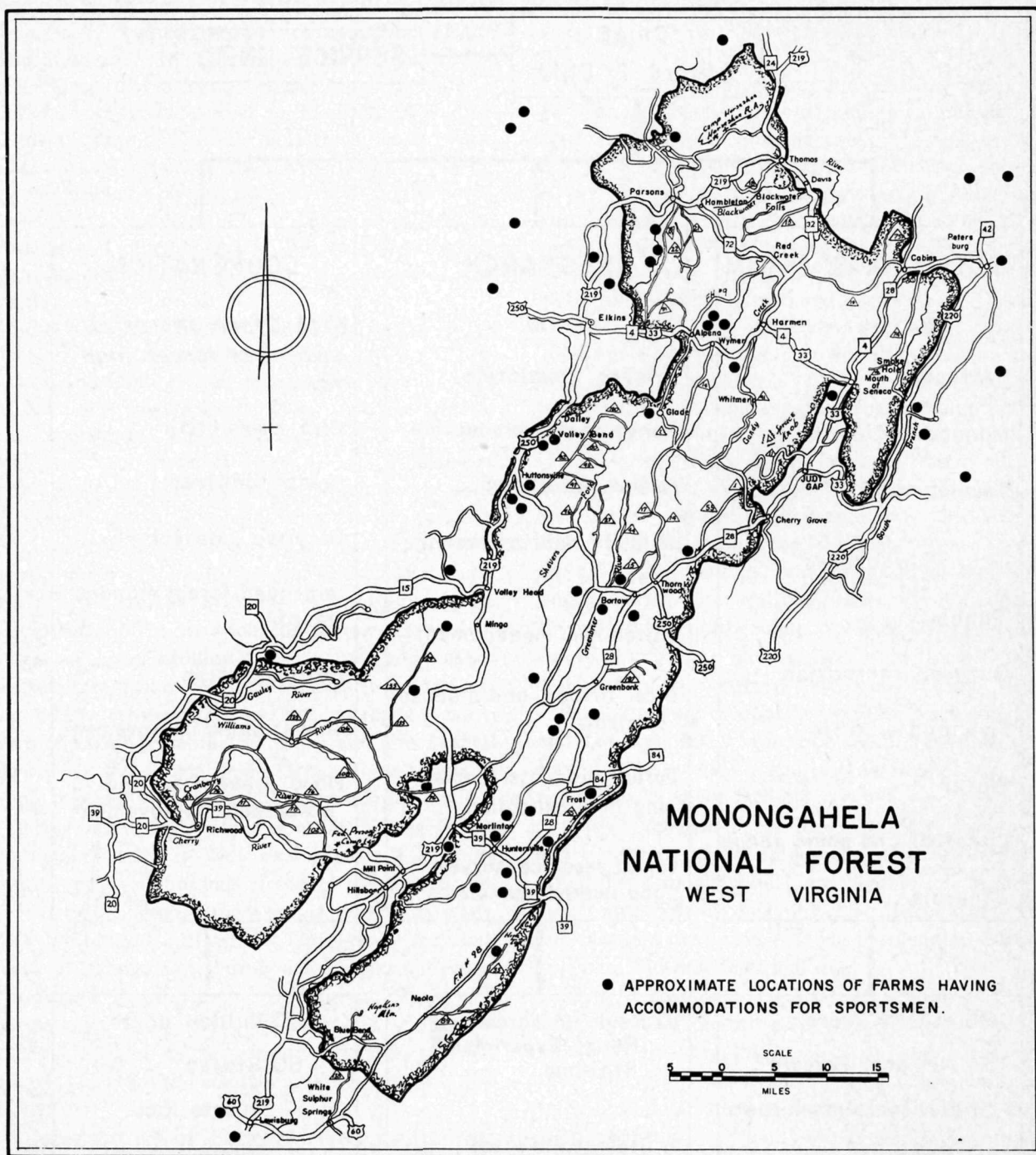


Figure 6.—An outline of Forest Service responsibilities.



Location of farms with accommodations for hunters within and near the Monongahela National Forest.

Throughout the country, combinations of National Forest lands, water impoundments, and local initiative could provide an outstanding setting for centers

of rural recreation. These would in effect be super-markets of recreation opportunity. They would take advantage of the outdoor recreation boom to create

an upward spiral of resource development and use. Reports of the Outdoor Recreation Resources Review Commission describe in some detail opportunities to strengthen the economy of rural areas through such cooperative actions.

About 60 percent of all recreation visits are not oriented to specific facilities or developed sites. Fishing, hunting, boating, bird watching, hiking, riding, wilderness travel, berry and mushroom picking, rock collecting, mountain climbing, and a host of other activities disperse visitors throughout the length and breadth of the National Forest System.

Virtually all National Forest lands and waters are open and available for public use, and activities are typically unrestricted. Only regulations to assure visitor safety and enjoyment and resource protection are invoked. For example, in times of extreme fire danger some areas may be closed to recreation, logging, and other uses.

The special quality of outdoor recreation in the National Forests is found in the vast opportunities to do things; to engage in a variety of spontaneous activities to the limits of energy and to freely select and use any of the resources and situations inherent in this huge system of lands and waters. Campgrounds and other facilities are often only a base of operations for a wide variety of activities.

The significance of these Federal properties is increasing steadily as public access to private lands generally diminishes. For example, public access to boating and fishing areas is becoming more limited in many areas as shorelines and access points are preempted by individuals or private groups. Posting of private land against public hunting has reached significant levels in some parts of the country. Increasing population pressures and loss of recreation resources through increasing commercial activities, water pollution, and other factors can be expected to shift an increasingly larger share of the total recreation load to the National Forests and other public lands.

The Challenge Ahead

Important aspects of the prospective outdoor recreation situation are crystal clear. The fact that recreation visits to the National Forests have increased sevenfold since the end of World War II, and continue to increase, cannot be disregarded. The

continuing gap between facility capacity and actual use, despite energetic construction and rehabilitation programs, is a cause for deep concern. The latent unmeasured demand for outdoor recreation that is revealed by construction of new reservoirs, scenic highways, new winter sports areas, or other facilities shows that development programs based on past use data are conservative.

The findings of the Outdoor Recreation Resources Review Commission and of the National Forest Recreation Survey recently conducted by the Forest Service provide many facts concerning the magnitude of the challenge ahead. The likelihood that the strong upward trend in numbers of visits will continue dominates all aspects of the immediate outlook. Day-by-day experiences of hundreds of resource managers and hundreds of thousands of visitors give substance and meaning to the cold statistics of ever-mounting recreation use.

Changing patterns of recreation use form a part of the challenge ahead. Equipment, facilities, and activities are becoming more sophisticated. More leisure, technical advances, higher mobility, more disposable income, higher standards of living, and better education have combined to create entirely new activities and to reshape the character of traditional activities like camping, hunting, boating, swimming, off-road travel, and winter sports. Travel trailers, camper units on pickup trucks, powerboats, scooters, telephoto lenses, and aqua-lungs are a few of the physical evidences that outdoor recreation is dynamic. Water skiing, sailing, surfboarding, and spear fishing are new or rapidly growing.

The rising need for administrative actions to be taken in response to new situations and problems is a distinct challenge. The physical impacts on resources; the need for better distribution of visitors in time and space; increasing competition among recreationists; changing patterns of recreation; the need for skillful interim management of potential development sites; the rapid growth of construction programs; the widening base of maintenance, sanitation, cleanup, and safety responsibilities—all affirm the certainty that more intensive and positive management of both resources and visitors must be achieved in future years.

The problem of inadequate resource development continues. A substantial part of the Development Program for the National Forests, transmitted to the

Congress by President Kennedy in 1961, is directed toward meeting the requirements of increased recreation use. Recreation facility development, access road construction, resource protection, and intensified development and management of fish and wildlife habitat are among the variety of actions scheduled in this 10-year program. Strengthened cooperative programs with States, private interests, and other governmental units can be anticipated. There is a need to accelerate all of these efforts.

In the Western States the resource supply outlook is generally favorable. However, acquisition of some tracts is needed to provide adequate access to public resources or for facility development. A comparison of prospective supply and demand discloses that almost all visitors to the western National Forests will be able to find the kind of recreation opportunities they seek for years to come. However, in the eastern National Forests where ownership patterns are fragmented within National Forest boundaries, the outlook is much less favorable.

Imbalances are in prospect in some areas nearest population centers or in some unusual situations, but frequently these can be postponed or avoided by appropriate managerial actions. The scope and timing of facility construction, road development,

land acquisition, and other actions will decisively influence the supply outlook in specific cases. The challenge to resource managers is to plan and do the right thing at the right place and at the right time.

Continuing appraisal of the supply and demand outlook will be needed—especially with regard to prospective opportunities for hunting, fishing, swimming, and wilderness experience. Better information is needed too about "carrying capacity" of developed recreation sites, wildlife habitat and populations, and other aspects of resource use. Improved understanding of the elements of visitor satisfaction and motivation is also becoming more important.

In perspective, the overall outlook for outdoor recreation in the National Forests is bright. If the scope of the actions to be taken is shaped by the magnitude of the challenge, there is a solid basis for optimism. But the lessons of the past are clear: prospective pressures of all kinds will demand the utmost skill and determination from National Forest managers in the future.

The continuing need for responsible use of this natural endowment is an equally significant challenge to all National Forest visitors.

II. PERSPECTIVE

... The many uses of the National Forest System are interwoven in time and space. Yesterday, today, and tomorrow, outdoor recreation can be seen as a deepening and spreading color in the mosaic of multiple use. This use of these lands is a vital part of the heritage of all Americans ...

Generations of Americans have found outdoor recreation opportunities in the National Forests. They have gone to these forests, ranges, lakes, mountains, and streams in ever-increasing numbers to find refreshment and inspiration. During this long period of time, the same lands have been called upon to produce ever-larger volumes of timber, livestock forage, water, fish, wildlife, and other products. Any perspective on National Forest recreation must span the years from the dim past well into the uncertain future. An awareness of the varied uses and the character of the resources involved, and an understanding of how recreational use of these particular resources fits into the national pattern, are essential parts of this perspective.

Yesterday

The Beginning

Recreational use of lands now in the National Forest System occurred long before the forest reserves were established. Luxurious camping expeditions by titled European sportsmen, complete with servants and portable bathtubs, were recorded as early as 1843. The lure of big game in the Rockies, fabulous scenery, and the challenge of unmapped terrain attracted generation after generation of their less affluent American counterparts. In the East, recreational use of lands became especially well entrenched in areas which were later purchased and proclaimed as National Forests. Many of the Nation's oldest families have traditionally spent leisure

time in the Ozarks, the southern Appalachian ranges, the mountains of New England, and in forested areas near the northern Great Lakes.

The foundations of resource management policy were clearly established at the inception of the National Forest System in 1905. Instructions then from the Secretary of Agriculture to Chief Forester Gifford Pinchot stated "... all the resources of

Recreationists used National Forest maps in Colorado in 1919.

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forest reserves are for use, and this use must be brought about in a thoroughly prompt and business like manner, under such restrictions only as will insure the permanence of the resource. . . ." This guidance has, from the beginning, been a keystone in the administration of the National Forests to meet the steadily increasing needs of all forest users—including recreationists.

The Early Years

Recreational use of the National Forests began to reach significant levels in some western areas shortly before World War I. In 1915 the Forest Service published a "Handbook for Campers in the National Forests of California." Two years later, an extended field study of recreation on the National Forests was made to appraise existing conditions and to formulate improved procedures

and policies. The report made clear that despite the already overcrowded facilities near some western cities, the fundamental problem was to acquaint the people with the great recreational opportunities and values of the National Forests.

In those early years, outdoor recreation centered about hotels, resorts, and summer homes. Access was limited and railroad companies actively promoted excursions to mountain retreats in the back country. Camping, hiking, and picnicking were popular forms of recreation wherever people could reach the National Forests. Even then, actions were necessary to safeguard and develop the resources. For instance, in 1906 steps were taken to protect the Kaibab deer herd in Arizona and in 1916 the Pisgah National Game Preserve was created in North Carolina.

In 1911 the Weeks law authorized land purchase by the Federal Government to assure protection of the flow of navigable streams and for other pur-



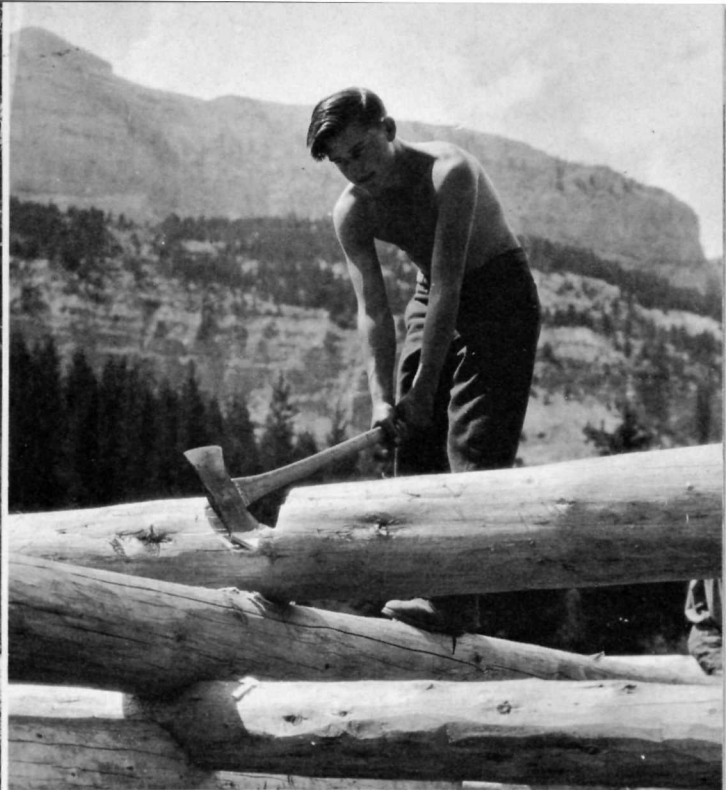
This lodge in California has been used continuously since 1924. Inyo National Forest.

F-193425



F-19422A

A California summer home in 1914. Shasta National Forest.



F-353970

Civilian Conservation Corps boys building bathhouses in Wyoming, 1937. Teton National Forest.

poses. Most of the area in the eastern National Forests was acquired under this law. Thirty percent of all recreation visits to the National Forest System now occur in National Forests east of the Great Plains although they contain only 12 percent of the total area.

Outdoor recreation surged in the "roaring twenties." A Nation on wheels found that camping, hunting, fishing, and viewing scenic wonders were good excuses to tour the country and try out new cars and new roads. In 1924 the Chief Forester reported, "As a matter of fact, the most unsentimental inventory of the National Forests would have to set down recreational assets as scarcely less valuable than their economic resources." However, the first appropriation for recreation facilities—\$10,000 in 1923—was patently far less than the amount needed for essential sanitation, fire prevention, and other protective measures. Rangers already burdened with "more important" work were hard pressed to accommodate their pleasure-seeking visitors.

The year 1924 also marked establishment of the Gila Primitive Area in New Mexico—a pioneering step which created the Nation's first formally designated wilderness. Two years later, the area now

called the Boundary Waters Canoe Area in northern Minnesota was given special protection. By 1939 some 14.2 million acres in 75 separate areas were identified and designated in the National Forest wilderness system.

In the 1930's the Civilian Conservation Corps, the Works Progress Administration, and other emergency labor programs produced camp and picnic grounds, group shelters, ski areas, trails, access roads, and many other facilities on a scale never remotely approached in earlier years. For once, facility development was adequate to meet the recreational demand on public lands.

During this period land and resource planning and related studies were accelerated. The significance of outdoor recreation in the life of our Nation began to be understood. In 1937 the first nationwide inventory of National Forest recreation resources was completed. The volume of recreation visits to the National Forests more than doubled during the thirties.

Global war and its aftermath dominated the forties as public attention shifted first to the urgent matter of national survival and then to the readjustments from war time to peace time. This decade marked the beginning of a widening gap between



In 1923 parking space in the Siskiyou National Forest received considerable use. Oregon.

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the demand for and the supply of facilities for the use and convenience of National Forest visitors. The wornout or damaged facilities, not maintained during the war years, were totally inadequate to serve the throngs of visitors that were commonplace by midcentury.

Recent Years

During the fifties, the gap between supply and demand continued to widen. In this decade the recreational load tripled as visits to the National

Forests increased at an unprecedented rate. In 1955 use of facilities exceeded their rated capacity by 39 percent. Overload danger signals were flashing throughout the National Forest System.

The midfifties marked a turning point as the Congress acted to meet the growing crises. Several bills were introduced to clean up, catch up, and move ahead.

By 1957 new appropriations for a series of special programs enabled the Forest Service to begin the job of closing the gap. That year marked the launching of "Operation Outdoors." This 5-year program

Left: A scenic overlook in Arkansas. Ozark National Forest. Center: New facilities meet the needs of new generations. Right: An interpretive exhibit helps visitors learn about nature's giant forces which formed a new lake in Montana. Gallatin National Forest.

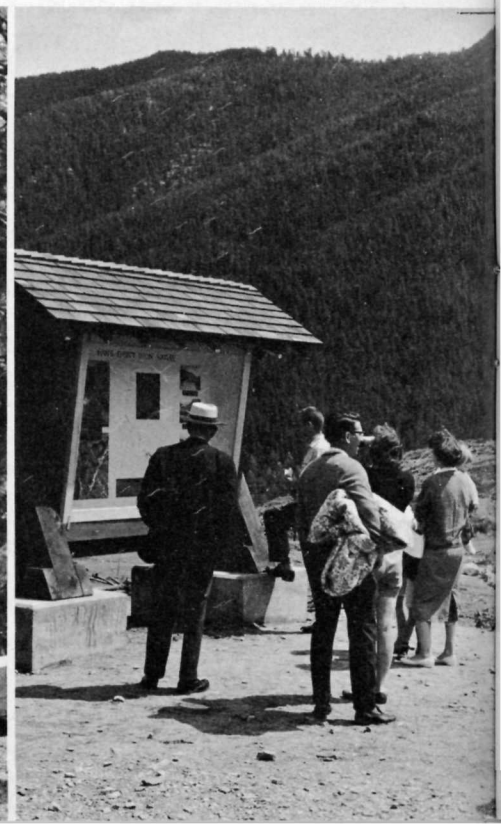
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Not all visitors appreciate public investments in improvements for their convenience and comfort.

began an era of real progress as new facilities were constructed and older ones were rehabilitated and expanded. A major new effort to improve fish and wildlife habitat in the National Forests through direct development work and through cooperative State-Federal programs was an important phase of Operation Outdoors.

The rising impact on the National Forests was only one of many indications of a boom in outdoor recreation. In 1958 the Congress created the Outdoor Recreation Resources Review Commission to make a nationwide appraisal of the situation and to make appropriate recommendations.

A National Forest Recreation Survey undertaken by the Forest Service at about the same time provided valuable support to the Commission's task besides meeting its own objectives. This 3-year survey paved the way for more effective decision making—from individual site development plans to interregional budgeting and servicewide policy making.

In 1959 the Secretary of Agriculture sent to the Congress a program for the National Forests, including an overall appraisal of resource development needs within the National Forest System. Long-range objectives were set forth together with

a more detailed 10-year program of work, which included estimates of the recreation resource development job to be done. The program received general congressional approval; for the first time a long-range, coordinated resource development program began to be implemented.

The subsequent pace of events and the rapidly rising demands for all kinds of National Forest goods and services soon required a critical appraisal of the 10-year program. Consequently, in September 1961 President Kennedy sent to the Congress a Development Program for the National Forests. Although similar in many respects to the earlier program, it scheduled substantial increases in recreation resource development and management items on the basis of new information gained in the National Forest Recreation Survey. Road construction, timber harvesting, and acquisition of certain privately owned tracts within the National Forest boundaries were among the activities accelerated in the program now underway.

The Multiple Use-Sustained Yield Act of June 12, 1960, was another milestone in recreation resource management on the National Forests. Although recreation was specifically recognized by the act of February 29, 1899, and later in numerous other laws, the 1960 act was the first to name in a single statute the five major renewable resources of National Forests, including recreation.

In the early sixties an Accelerated Public Works program provided an opportunity to step up recreation facility development, access road and trail construction, and other work which directly improved recreation opportunities in the National Forests. During the same period the Forest Service launched a Visitor Information Service program to add to visitor enjoyment through interpretation of natural and human history and to provide general information on National Forest activities. These years also were marked by a notable increase in forest recreation research work in the Forest Service and substantial progress in wilderness classification.

In 1963 the Forest Service completed a study of potential locations within the National Forest System for development of recreational driving opportunities through areas of outstanding scenic quality. This study was stimulated by the Outdoor Recreation Resources Review Commission conclusion that recreational driving is the most popular form of outdoor recreation.

The Bureau of Outdoor Recreation was created as a result of recommendations by the Outdoor Recreation Resources Review Commission. In 1963 the new bureau was authorized by Public Law 88-29 to promote the coordination and development of effective programs relating to outdoor recreation. The functions and activities of the bureau include resource inventory and classification, nationwide planning, research, and other responsibilities.

The President's Recreation Advisory Council was established in 1962 to provide top-level policy direction in the field of outdoor recreation. It includes the Secretaries of the Departments of Interior, Agriculture, Defense, Commerce, and Health, Education and Welfare, and the Administrator of the Housing and Home Finance Agency.

The first policy circular issued by the council outlined a Federal executive branch policy governing the selection, establishment, and administration of National Recreation Areas. It defined criteria for selection of the limited number of National Recreation Areas envisioned by the council, and for determining priority of development. Several prospective National Recreation Areas include large tracts of National Forest land with high recreational values.

In 1964 the 88th Congress enacted the Wilderness Act, the Land and Water Conservation Fund

Act of 1965, and Public Law 88-657 enabling the Secretary of Agriculture to construct and maintain an adequate system of roads and trails for the National Forests. These laws, together with other new legislation, will be key factors in shaping National Forest Recreation in the years ahead.

Early in 1965, President Johnson provided new emphasis on measures to preserve natural beauty, protect "wild" rivers, reduce water pollution, and otherwise improve the environment for outdoor recreation.

Today

The Character of the Opportunity

The diversity of National Forest recreation opportunity ranges from the scenic glaciers of Alaska to the tropics in Puerto Rico; from skiing in the high country to winter picnicking in the southern forests; from deep wilderness in the Northwest to highly developed campgrounds near population centers; from mountain streams to the northern lakes. The potential capacity of the National Forest System to accommodate recreation visitors is enormous.

Time out for lunch in the Talladega National Forest in Alabama.

F-464988



Opportunities are virtually unlimited for hiking, riding, hunting, fishing, boating, and the host of other activities which require few if any special facilities. However, a large share of the Nation's recreation facilities are on these lands as well. For example, there were 4,900 developed campgrounds in the National Forest System in 1964 with a capacity to accommodate 294,000 people at one time. The Outdoor Recreation Resources Review Commission estimated that the total number of designated campgrounds in 1960 was about 9,350—including all Federal, State, and local units in the 48 contiguous States.

The overall quality of recreation opportunity is equally impressive. Tracts with unique characteristics such as the Boundary Waters Canoe Area, the Ancient Bristlecone Pine Botanic Area—site of America's oldest living vegetation—and the huge Selway-Bitterroot Wilderness afford a quality of recreation experience that cannot be found elsewhere. Countless other areas rank high in scenic beauty, hunting and fishing, and general attractiveness.

The effects of administrative policy are visible in the character of National Forest recreation use. Because active participation is a main theme, management and development of the raw resources of land, water, flora, and fauna is directed toward creating opportunities for visitors to do things, to learn things, to become a part of their outdoor environment. Semiprecious gems may be found and collected; pine cones and other common plant specimens may be taken home; game animals, birds, and fish may be harvested according to State laws; and dead timber, forage, and other materials may be used on the site for camps or other purposes as needed. The limitations placed on recreational use of National Forest resources are simply those required for good citizenship and rational stewardship of a public trust.

Administrative policy has also been directed toward maintaining an appropriate environment for forest recreation. National Forest lands are not made available for bowling alleys, nightclubs, amusement parks, carnivals, or similar uses of more than urban character. Facilities are designed to harmonize with the environment. Development is oriented generally to provide families with opportunities to pursue their own inclinations in a natural, informal, and pleasant setting. Many visitors never



F-468757
County agent shows 4-H Club boy how to collect plants; Caribou National Forest, Idaho.

encounter Forest Service employees unless they are seeking assistance or using special recreation facilities.

The character of National Forest recreation is still primitive in many areas, but today's visitor has a wider choice than ever before. He can ride a chairlift at a fashionable ski resort constructed by private enterprise on National Forest land or he can ski in solitude on undeveloped slopes. He can pitch his tent in countless places miles from anyone else or he can pull a sleek trailer into a site developed for mobile units. He can launch a powerboat at a modern facility or he can portage a canoe into wilderness depths. The choice is his—the opportunities are there.

The Relation to Other Uses

For the most part, outdoor recreation activities are compatible, or can be made compatible with other uses, and the reverse is also true. In some places multiple uses of the resources actually enhance each of the several uses, and especially recreation. Hunting and fishing provide good illustrations. The valuable effects of timber harvesting in creating favorable wildlife habitat are well established. Reforestation to stop erosion of soil from burned or denuded areas has obvious benefits for fish populations dependent upon clean water. Hunting is an effective means of protecting big-game habitat from overuse. Protection of the forests from fire, insects, and disease benefits recreationists in terms of personal safety and esthetic values.

Use of broad expanses of forests and rangeland for several purposes requires skillful management to assure maximum total benefits for the public. This coordination of uses becomes especially important in specific areas where the supply of a certain type of resource is limited. Timber harvesting practices must be modified in areas of heavy recreation use. Forage in some areas must sustain



F-499766

Setting up camp by Little Redfish Lake in Sawtooth National Forest, Idaho.

A road serves both timber harvest and recreation near a National Forest reservoir in Tennessee.

F-502176





Sport fishing and livestock grazing go together in the Umatilla National Forest, Oreg.

F-495021

both livestock and big-game animals. Recreational and other use of areas adjacent to streams and lakes supplying municipal water often must be modified.

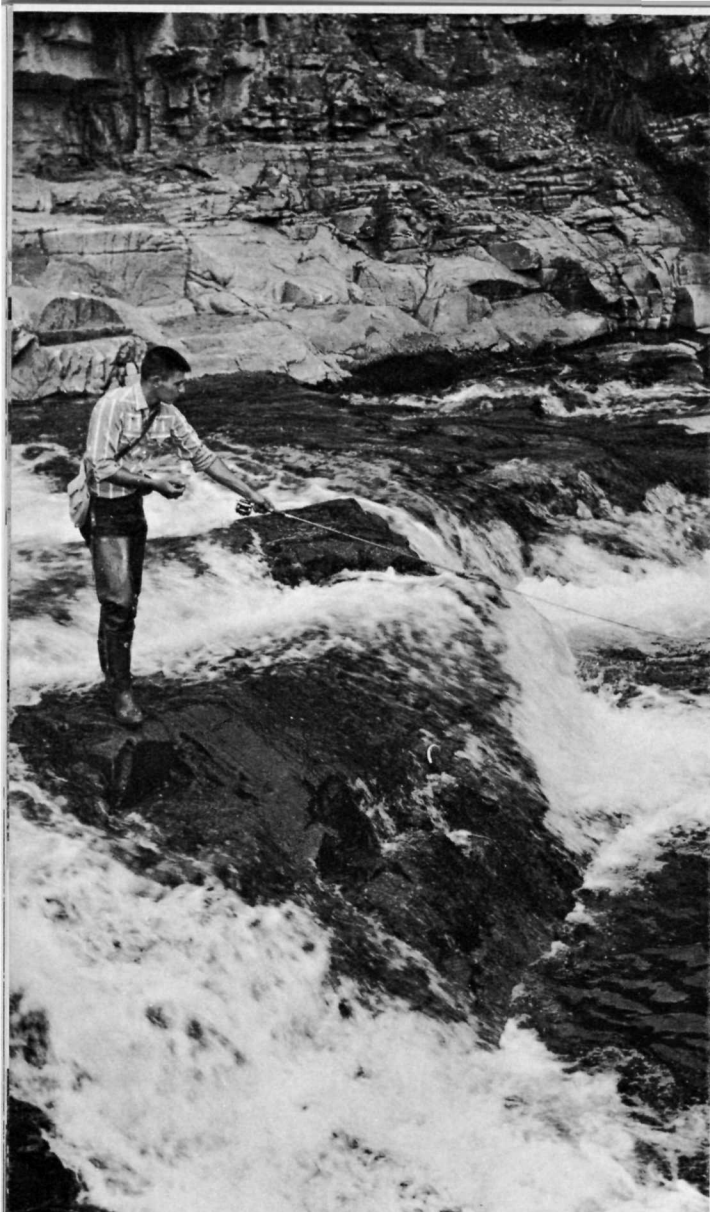
National Forests include many of the Nation's most important watersheds. They not only yield huge volumes of water, they are essential in protecting streams and reservoirs from sedimentation. More than half of the water supplies in the West originate on National Forest watersheds, which occupy about one-fifth of the area. In the East, rainfall is usually the greatest in forest zones such as southern Appalachian areas. In many areas, resource management to improve the volume, quality, and timing of water yields is critically important.

The production of fish and wildlife populations is a use of National Forests closely related to important forms of outdoor recreation. One-third of the Nation's big game, more than 80,000 miles of fishing streams, more than 40,000 lakes, and literally millions of small game animals, upland game birds, waterfowl, song birds, and other species constitute resources available for enjoyment by the American public.

Though it is worthless for lumber or similar uses, this oak tree was left to produce wildlife food. Appalachicola National Forest, Fla.

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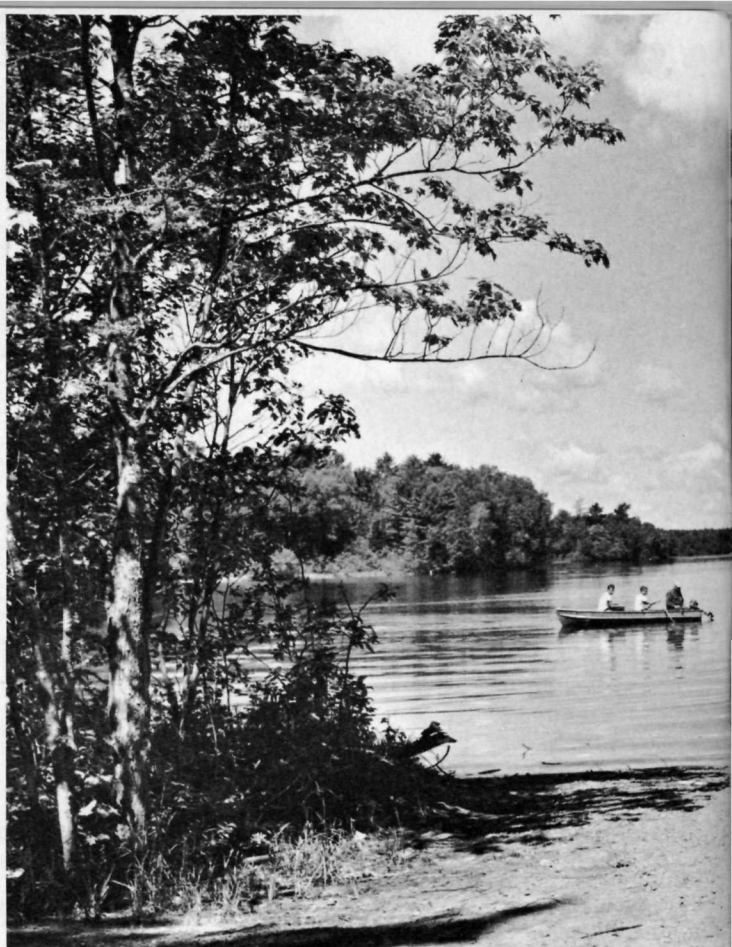




The Carson National Forest in New Mexico attracts Kansas fishermen.

F-497472

Responsibility for management of fish and wildlife populations rests with the States. On the other hand, protection, management, and development of fish and wildlife habitat in the National Forest System is the responsibility of the Forest Service. Close cooperation has resulted in effective utilization of the National Forests for continuing yields of fish and wildlife. Special protective actions such as the establishment of a Kirtland Warbler Management Area on the Huron National Forest in Michigan illustrate specific resource management practices designed to preserve, maintain, and improve the resources.



A lakeshore access point in the Nicolet National Forest in Wisconsin.

Construction and maintenance of many thousands of miles of roads and trails provides access for hunters and fishermen—access that is vital for scientific fish and game management. Such access routes, of course, contribute to the full use and enjoyment of these resources by sportsmen, nature lovers, students, and others.

The 62 million acres of land suitable for livestock grazing in the National Forest System are grazed by some 6 million cattle, horses, sheep, and goats in addition to the countless game animals. More than 19,000 ranchers and farmers use these lands either part or all of the year. Range rehabilitation and revegetation work was done on more than a quarter-million acres in 1964, and many physical improvements such as ponds, wells, springs, and fences were developed. Many of these improvements are translated directly into outdoor recreation capabilities as the habitat for fish and game species is improved.

People like to see good livestock on good rangeland. They like to see cowboys at work, bands of

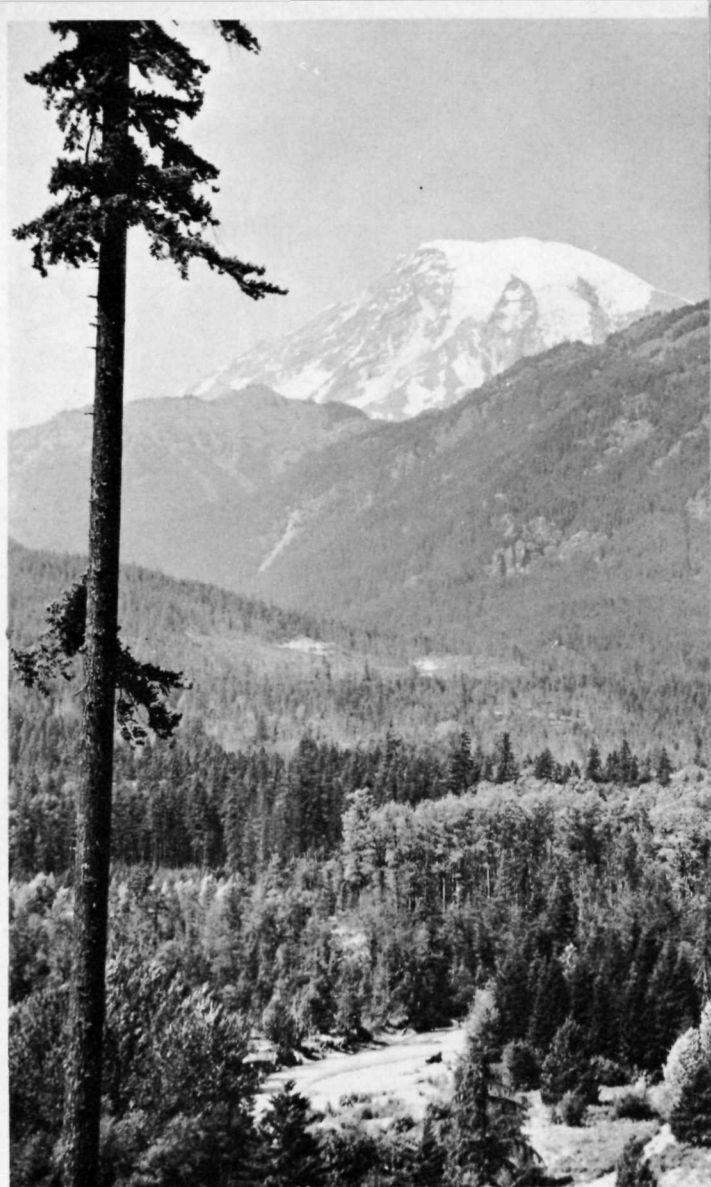


F-495737

sheep on grassy mountain slopes, and other parts of the American range scene.

Miscellaneous uses of the National Forests are legion. More than 100 different kinds of special uses, ranging from television transmission tower sites, churches, military zones, pipelines, landing fields, and reservoirs to privately owned recreational or service facilities, serve both national and local needs. Some 79,000 special use permits were in force in 1964.

More than a third of the Nation's entire saw-timber inventory is located in the National Forests. Timber production on about 95 million acres of commercial forest land is an important, and in some cases vital, use of the National Forests to supply forest industries with raw materials. This source of timber has long been a mainstay of the local economy in many areas. Timber purchasers harvested 11.0 billion board feet of National Forest timber in 1964—a record high volume. More than 12 billion board feet was sold. Countrywide, this timber harvest



F-468840

Cowlitz River area, Gifford Pinchot National Forest in Washington.
Mount Rainier in the distance.

amounts to more than 15 percent of the total volume cut year after year.

Reforestation, removal of hazardous trees, and other cultural treatments related to timber production have significant benefits to recreationists. Moreover, visitors are interested in the scientific aspects of regeneration, logging, and other activities. They enjoy observing and learning about timber management practices. Logging roads are immediately used by sportsmen and nature lovers as new avenues into backwoods areas previously inaccessible by car and difficult to reach on foot or horseback.



F-498082

Loading logs in the Apache National Forest in Arizona.

The Relation to Other Lands

The work of the Outdoor Recreation Resources Review Commission has made it possible to view National Forest recreation opportunities and activities in the context of the entire scene. Their reports show both the significance of National Forest recreation and the magnitude and character of other lands, waters, and facilities available for public recreation. And perhaps even more important, they give a much-needed insight into the characteristics of recreationists. For the most part, outdoor recreation resources throughout the country are mutually complementary. Most outdoor recreationists plan their trips and activities with little regard for the ownership or management of land or facilities. They visit parks and

forests, lakes and streams, mountains and swamps, motels or campsites, restaurants or picnic sites, and other attractions or facilities depending on their interests and convenience.

Data in the Commission report indicates that about 70 percent of all public land designated for outdoor recreation uses is within the National Forests. Other public areas, of course, also contain outstanding scenic and other recreational assets well appreciated by the public. The predominance of privately owned lands in most parts of the country, especially in the East, underscores the growing significance of outdoor recreation on private lands. Geographic distribution and other considerations make it plain that the National Forests supply only a small share of the total outdoor recreation opportunity.

The close association of National Forest lands with other Federal lands suggests the need for coordinated development and management of recreation resources on all types of public land. Recreation on wildlife refuges, reservoir areas established by the Corps of Engineers or the Bureau of Reclamation, National Parks, and Bureau of Land Management areas is affected by what is done on nearby National Forests—and the reverse is true. But these lands are complementary. For example, National Parks are established for the exclusive purpose of preserving scenic, historic, geologic, or comparable values intact. The resources of the more extensive surrounding National Forests, often less spectacular but equally interesting, provide additional and different recreation experiences in the context of multiple use.

In January 1963 the Department of Agriculture and the Department of the Interior announced a formal agreement on jurisdictional responsibilities in managing public recreation areas. This agreement outlined principles of cooperation and pointed out the need for National Recreation Areas in certain situations.

Large water impoundments constructed by the Corps of Engineers and the Bureau of Reclamation often create excellent recreation opportunities not otherwise available. Recreation use is generally planned and administered as incidental to the main purposes of flood control, navigation, and water management. Some of these large reservoirs, or parts of them, are within or near National Forest boundaries. Consequently, National Forest campgrounds, picnic sites, and other facilities are heavily used by people visiting the reservoir area.

In August 1964 the Secretaries of the Army and Agriculture signed a memorandum of agreement regarding management of land and water resources at water development projects of the Corps of Engineers, located within or partly within the National Forest System. The memorandum outlined the principles to be followed in working out specific development and administrative arrangements relating to recreational and other uses of resources in these project areas.

Outdoor recreation pressure is usually inversely related to the distance recreationists must travel. Most Federal properties suitable for recreation uses are relatively far from population centers. Local parks and private lands must carry the greater part of the recreation load.

Many State governments now are moving aggressively to meet the need for "nearby" recreation opportunities. California, New York, Pennsylvania,

New Jersey, Wisconsin, and other populous States are engaged in multi-million-dollar land acquisition programs to meet the avalanche of demand within their borders. State agencies administer some 31,000 nonurban areas, including 54 million acres, available for recreation according to a 1962 report by the Bureau of Outdoor Recreation. The current "open space" program movement in municipal land-use planning is part of the effort to meet this need in urban areas.

More than 90 percent of all land owned by forest industries is open to the public for hunting, fishing, and other outdoor recreation. Despite increased fire and liability hazards, increased taxes, road damage, littering, and other problems, many industries promote public use of their land. Some of the largest corporations with the most valuable timber resources are leading the way in developing and maintaining campgrounds and other recreational facilities for public use.



Much of the watershed of this TVA reservoir is within the Cherokee National Forest.

F-486262

In contrast to large private and public holdings, many small properties are no longer available for public recreation. Although quantitative data are lacking, a growing trend in posting farms and small woodlands against public entry is apparent. Purchase of forest land for the exclusive use of small groups of sportsmen is especially significant. For example, in 34 counties of lower Michigan more than half of the forest land will be posted by 1975, according to estimates.

Shifting patterns of land and water use now tend to remove land, water, scenic beauty, vegetation, wildlife, and other basic ingredients of outdoor recreation resources. Urban development and stream pollution, for example, reduce the total present and potential opportunity.

These trends will shift a greater share of the load to National Forests and other public lands—areas which may already be heavily used.

Tomorrow

The Trends in Use

The most general and dominant trend today is the steadily increasing demands being placed on National Forest resources. These increases are impressive in terms of doubling and tripling over short intervals, or when expressed in quantitative units. An additional billion board feet of timber harvested, 10 million more recreation visits, 10,000 new family units for camping and picnicking, and 1,000 more special use permits indicate roughly the size of a few recent annual increases. There is little doubt that this trend toward increasing use of all National Forest resources will continue in the foreseeable future.

Fortunately, data to illustrate recreation use trends on the National Forests are available. District Rangers and other managers report their estimates of recreational use each year on more than 800 units of the National Forest System. The estimates of recreational visits include only persons actually using National Forest resources or facilities and do not include people just driving through the National Forests (fig. 7).

Trends in actual use do not measure the entire demand for outdoor recreation opportunities in the National Forests. Uncounted thousands are turned

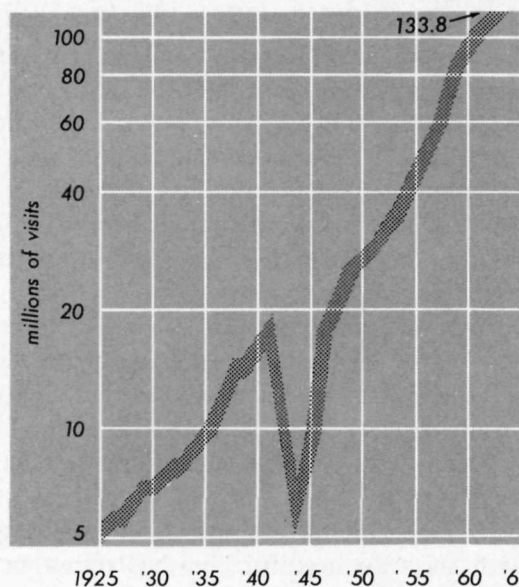


Figure 7.—Trend of National Forest recreational visits, 1925-64.

away from overcrowded campgrounds and other facilities each year. Many others do not even attempt to compete for facilities known to be overcrowded in peak seasons of use. More and different facilities, better access, less congestion on lakes and in remote areas, and less competition in hunting and fishing areas would substantially increase the number of recreational visits.

The upward trend in visits is nationwide; all National Forests are experiencing marked increases. However, the geographic pattern of this increase shows considerable variation among the States and regions. Figure 8 illustrates some of this pattern as represented by States selected from eight major regions.

In this period the greatest absolute increase by far was in California—a State where large population centers are relatively close to National Forests and access is generally good. Relatively large percentage increases in many cases reflect new situations or new activities. For example, the boom in winter sports tends to be concentrated in specific areas, and the movement toward the Southwest for retirement and the year-round recreation use of the National Forests there explain some of these increases.

All recreation activities have increased since World War II but some are increasing at a much faster rate than others (fig. 9). National Forest



Sherando Lake, a popular manmade facility in Virginia. George Washington National Forest.

F-512598

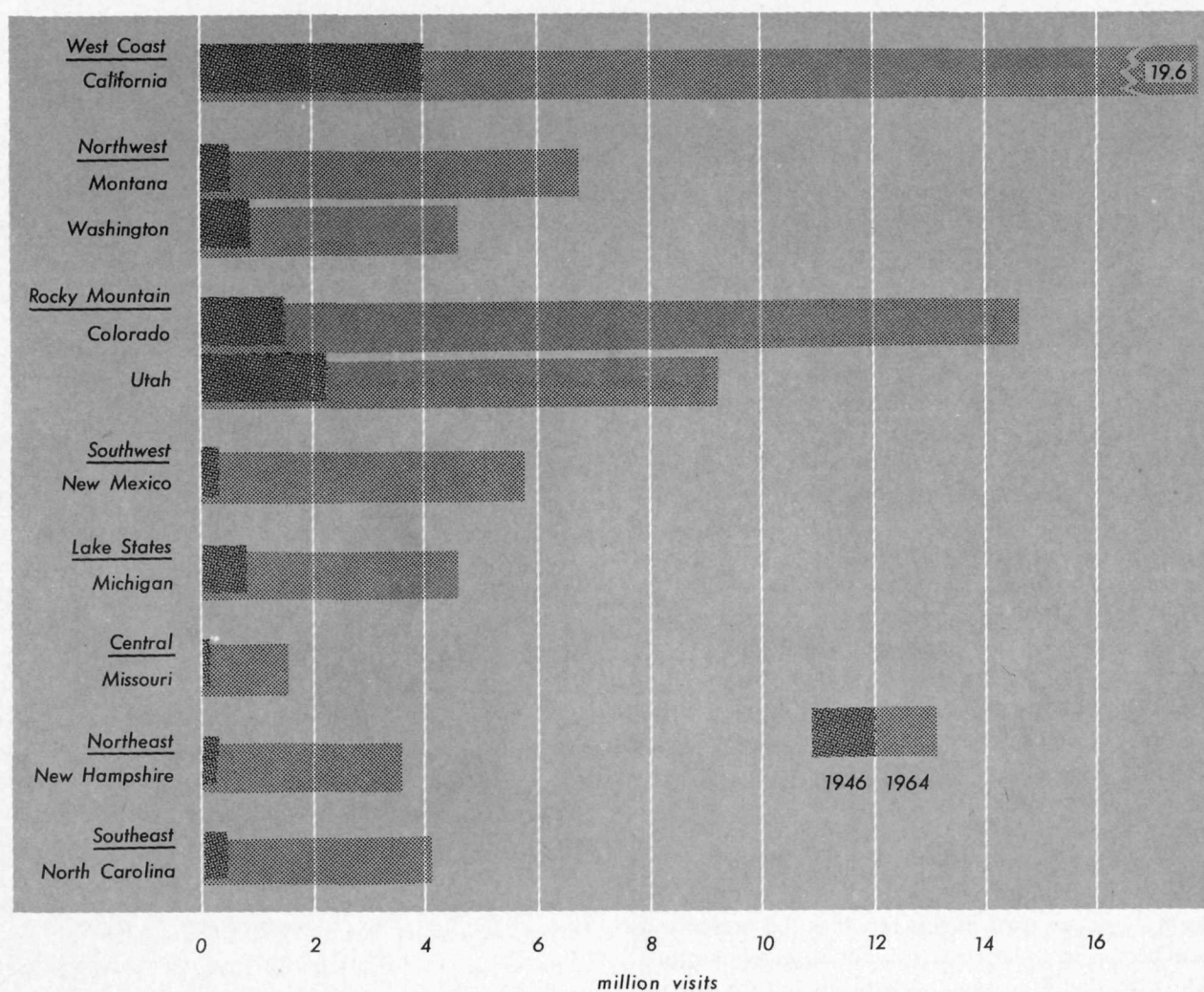


Figure 8.—Recreation use of National Forests in selected States, 1946 and 1964.

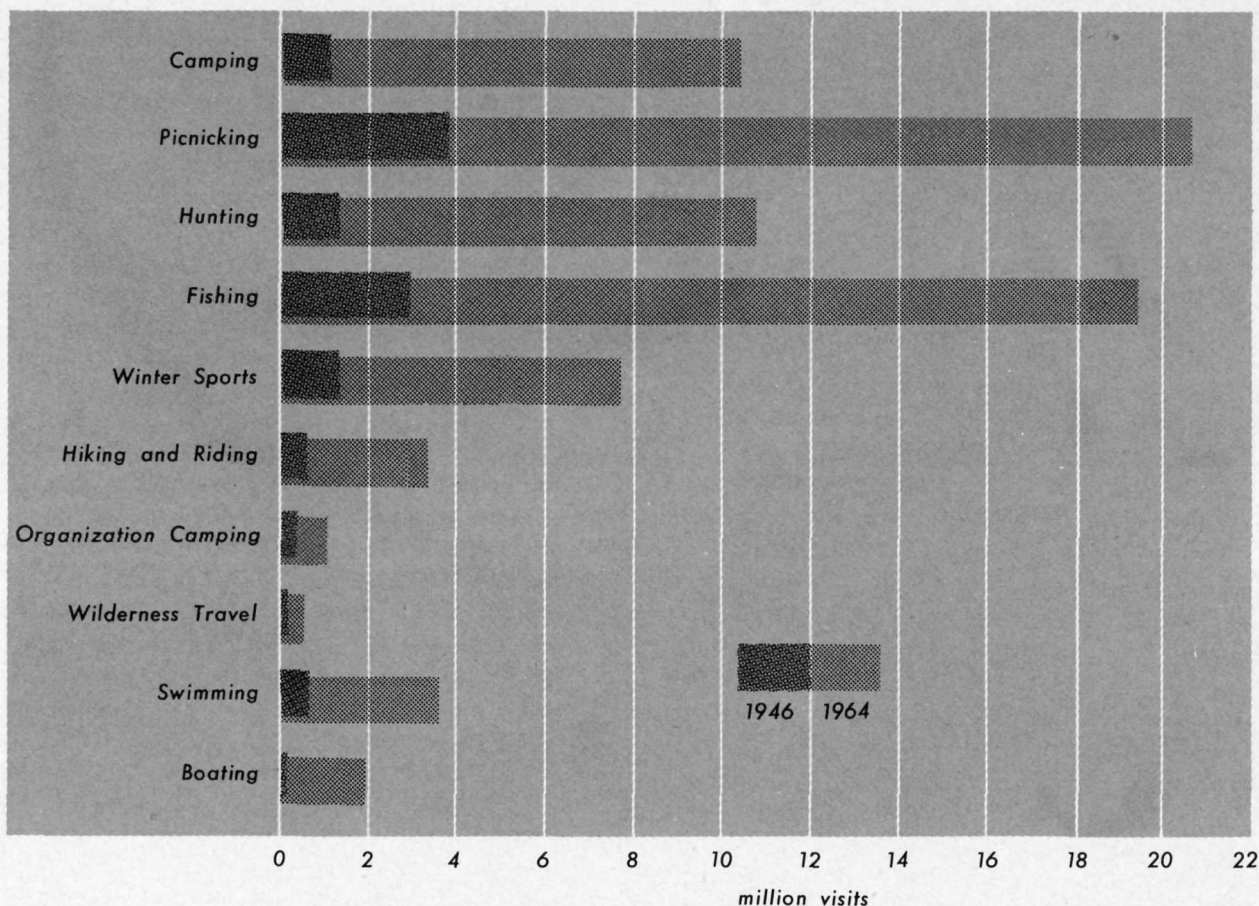


Figure 9.—Increases in specified National Forest recreation activities, 1946–64.

visitors typically engage in a variety of activities during their stay. Frequently hunters and fishermen camp in the course of their visit and campers swim, hike, fish, and participate in other activities.

In terms of visits, picnicking and fishing have registered by far the greatest increase in numbers since 1946. However, camping and boating showed the strongest relative gains with more than tenfold increases during this period. About 37 percent of the visits in 1964 were classed as for general enjoyment—no specific activity being identified as the primary purpose.

Measuring and analyzing trends in recreational use of forest land and waters is a difficult task. Even the units used to measure such use are complex and sampling problems are unique. For example, the term “visit” as used in this report is the presence of one person in a particular area for an indefinite time. He may spend an hour at a picnic site or he may spend weeks traveling through a wilderness area (fig. 10).

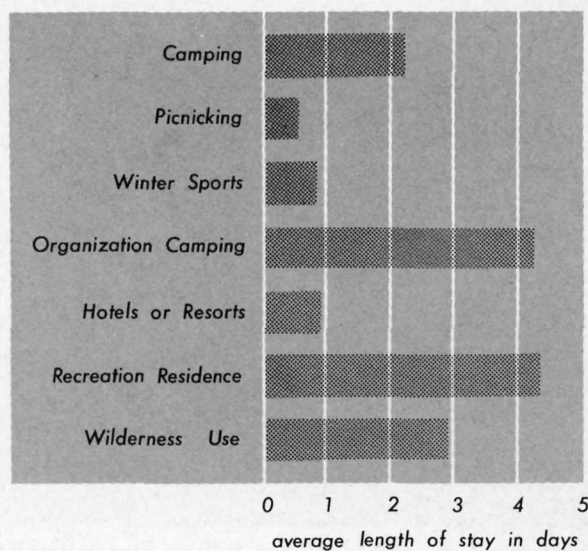


Figure 10.—Average length of stay for specified types of recreation.

A visitor-day measures occupancy of an area or facility in terms of days. Three or four separate picnic groups may use a particular unit during the same day and account for only four or five visitor-days depending on how many people were in each group. Or one family of four might stay at a campsite for 2 weeks and account for 50 or more visitor-days. The number of visitors is less useful and almost impossible to determine because individual families often make repeated visits to a particular National Forest in the course of a year, or they visit a series of areas when traveling cross-country.

In figure 11, the trend of use expressed in visitor-days is superimposed on the trend of visits. The narrowing interval between the lines indicates a tendency toward shorter visits. Although the number of visits tends to equal the number of visitor-days in an overall total, this is a coincidence which does not hold true in localized or specific instances.

The Changing Patterns of Use

Significant changes in the pattern of recreation in the National Forests have become evident in recent years. The effects of these changing characteristics may prove to be fully as significant as the increased volume of use.

In almost every activity, and in every region of the country, the length of stay by most visitors at a particular facility or area is decreasing. In the past, families usually camped or took extended vacation trips only on their annual 1- or 2-week vacation. Travel was relatively slow, equipment was less mobile, campgrounds were less accessible, and interests less diverse. Relatively few families had either the time or the funds for cross-country vacation trips.

The pattern now is tending toward more weekend trips, more 1- or 2-day stops at several areas in the course of extended trips or vacations, and more use of winter-sports, boating, or swimming sites or other specific areas where visits are typically short. Day-use is becoming much more common as people travel to and from their homes more readily, and more frequently stay overnight at motels or similar accommodations.

Equipment and facilities are becoming more sophisticated. Current development of areas and facilities shows responses to changing patterns in the activities and interests of National Forest visitors.

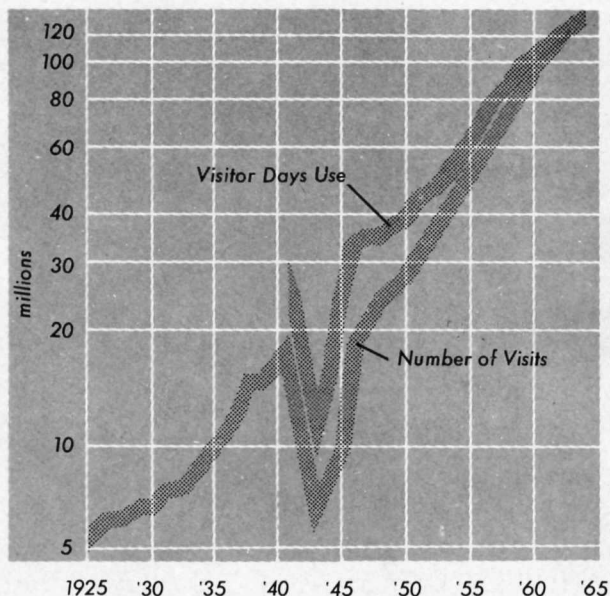


Figure 11.—Trends in National Forest recreation visits and visitor-days, 1925–64.

For example, tent campers are often outnumbered by families with vacation trailers, truck-mounted camper units, and other mobile shelters. This trend requires modifications such as suitable parking spurs and longer road turn radii. Owners of mobile shelters are often more interested in electrical and water hookups at a campsite than they are in a fire-grate and table. Efficient development and management often dictates separation of tent units from trailer units.

Requests for hot and cold running water, laundry facilities, showers, electricity, flush toilets, and other more luxurious accommodations are becoming more emphatic. The response to this demand is development of large, mass-recreation areas where they can be provided at a reasonable cost per visit. In the Kaniksu National Forest in northern Idaho about three-fourths of the 165 people questioned in a recent study preferred development of larger sites with more capacity in preference to small, more isolated units.

This particular changing pattern of visitor preference is accompanied by a need to "harden" heavily used sites. Paved parking areas, complex water systems, flush toilets, and other costly improvements are often needed to assure visitor safety, adequate sanitation, reasonable maintenance costs, and protection of the site itself.



A typical skiing scene; Arapaho National Forest, Colo.

F-478608

This trend toward more elaborate development is offset to some degree by the people who still prefer "minimum" facilities at developed sites or even none at all. These visitors typically "rough it" without contacting Forest Service employees; their numbers and their opinions are not so well known. There is a concurrent increase in the number of people preferring to enjoy outdoor recreation with only minimum use of campground or other facilities.

The increasing numbers and sizes of boats and boat trailers provides another example of how changes in outdoor recreation equipment affect Na-

tional Forest use and development. Expensive boat-launching sites and parking areas are now required at many locations.

Conceivably, low-cost family helicopters may become a principal means of recreational travel. The implications of this with respect to recreational use of the National Forests can only be imagined, but even the possibility has significance in long-range planning. The use of cross-country scooters in lieu of horses or mules and foot travel is a recent development in backwoods recreational travel that was unforeseen a few years ago.

The characteristics of National Forest visitors themselves are changing perceptibly. Today's visitors are typically in a family group instead of alone or with a group of their own age and sex. Their average age is greater—camping out, especially with trailers and other mobile units, is no longer the prerogative of the young, hardy, and athletic person. Visitors are also relatively affluent, at least to the extent that most family vacations in the National Forests are by choice rather than as a matter of economic necessity.

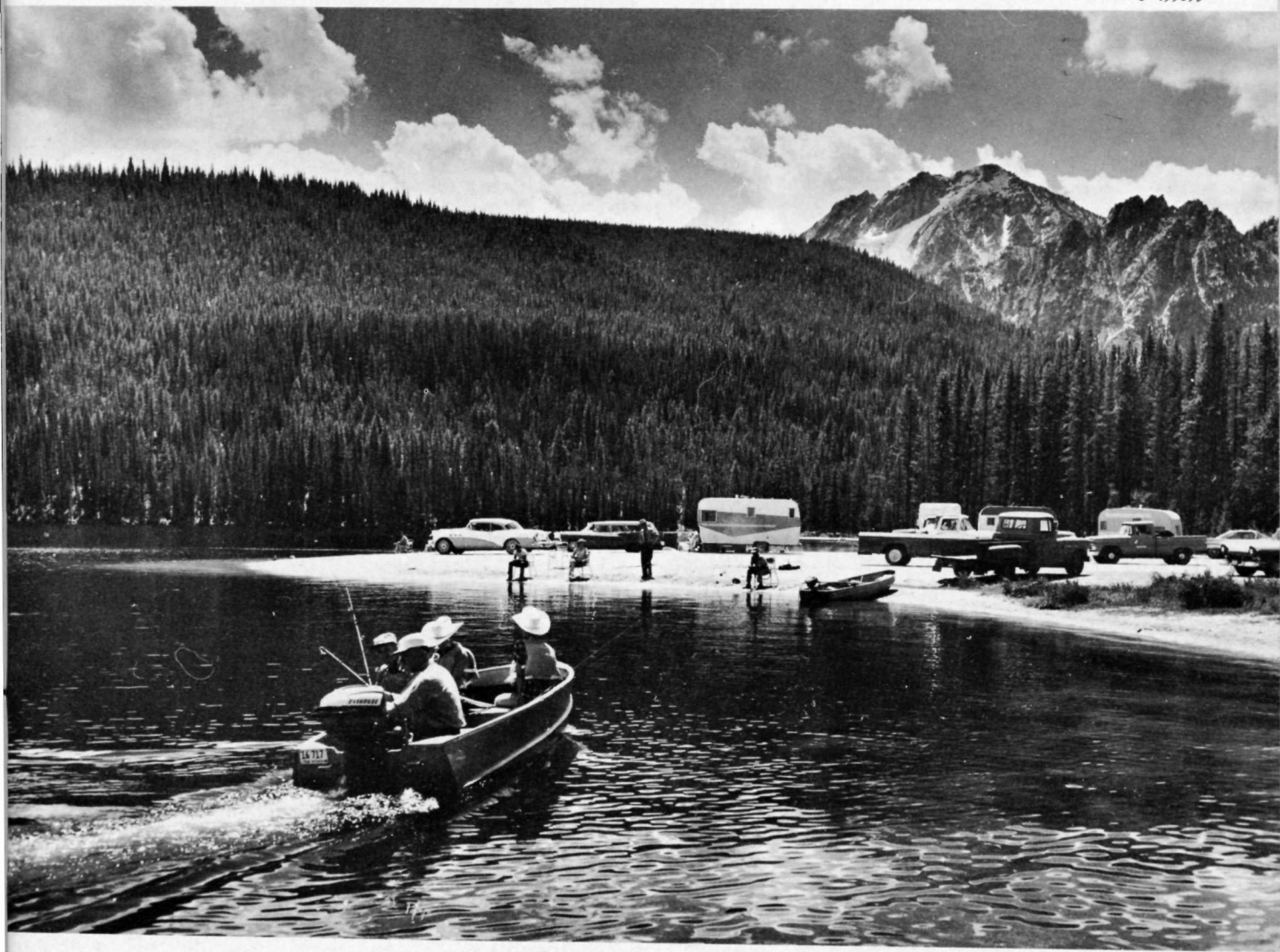
Today's typical visitor is farther from home. He is a transient with a long cruising radius rather than

a local person. He is often on his way to some far-off destination, or else on the way back home. He is usually in a hurry, having a lot to see and do scheduled for each day. His interests are varied. His skills often are remarkable. His thirst for knowledge is insatiable.

Visitors seem to be increasingly "soft." They don't venture far from their cars. Life in camp, in terms of creature comfort, is not much different from that at home. Frequently picnic units are crowded and overused near the road or parking lot while more distant tables in the same area are unused. Even hunters are tending to use motels and res-

A wide variety of equipment is brought to this boat landing in the Challis National Forest, Idaho.

F-499693



taurants as a base of operations instead of the traditional hunting camp. Paddles and oars are being replaced by gasoline cans and outboard motors. Chair-lifts and rope-tows have become as essential as ski wax and ski poles.

The Memorial Day to Labor Day pattern of seasonal use is changing. The growing popularity of winter sports has extended National Forest recreation into the winter months. In the South and Southwest, retired people and others take advantage of the warm climate and the uncrowded conditions to enjoy outdoor recreation in the off season. Liberalized hunting and fishing regulations also tend to lengthen seasons.

Visitors are also becoming more dispersed throughout the National Forest System. Part of this dispersion is planned to avoid congestion and overuse of facilities or areas. Most of it comes automatically with the thousands of miles of roads and trails added to the National Forest transportation system or improved each year. The increasingly diverse interests of the visitors and their urge to keep moving bring them to almost every nook and cranny of the National Forests.

Installing water pipe for a new picnic site; Caribou National Forest, Idaho.

F-501066



F-496517

The old and the new in off-road transportation; Bitterroot National Forest, Idaho.

Dynamic forces now at work assure continued change. New activities will spring into prominence and old ones may decline as new generations continue to seek refreshment outdoors. The urge to "get back to nature" is an important factor in the lives of increasing numbers of people.

The prospect that National Forest recreation visits will increase twice as fast as the overall rate of increase estimated by the Outdoor Recreation Resources Review Commission is an indication of the attractiveness of these areas. People are beginning to break the time and distance barriers which have held down recreation use of National Forest resources in the past.



F-493638
A chair-lift that operates all year. New Mexico; Santa Fe National Forest.

The Outlook

Forest Service estimates of future recreational use have frequently underrun the volumes eventually experienced. For example, projections made in 1955 in connection with Operation Outdoors were 24 percent below actual use in 1958. Estimates based on more elaborate techniques were developed on a State-by-State basis in 1958 in connection with the National Forest Recreation Survey. That work led to estimates of 250 million visits in 1976, and 636 million visits by the year 2000. Although actual visits are running above the projected trend line, it is too soon to judge the accuracy of these estimates.

The physical impact on resources gains new significance as recreation visits increase. At heavily used sites strong efforts will be needed to protect the resource. The trampling effect alone can eliminate vegetative growth and create erosion and water runoff problems. A basic concept of recreation management is recognition of the carrying capacity of various soils, vegetation, and water resources. Scientists are already at work to find the answers that resource managers will need. Management practices such as irrigation, fertilization, and "resting" heavily used areas for several seasons may become necessary to maintain or rehabilitate sites and protect investments which cannot be shifted to new locations. Limitations on overcrowding in peak seasons and development of overflow areas near sites where visitors are concentrated are two examples of administrative practices already used in some cases.

Recreation resources are often fragile and esthetic qualities can deteriorate rapidly with excessive recreation use. Littering, vandalism, and fire damage are obvious impacts, but there are many others less

A bow-hunter looks for deer. Arkansas; St. Francis National Forest.

F-498332





F-496907

Logging road being built in the Sierra National Forest, Calif., by a timber purchaser will also be used by recreationists.

noticeable. For example, uncontrolled use of secondary roads which become deeply rutted in wet seasons often creates severe erosion and maintenance problems. Fish and game populations in certain areas may be impaired unless the hunting and fishing pressures in prospect are skillfully handled.

Even greater dispersion of visitors throughout the National Forest System is clearly on the horizon. The construction and improvement of forest roads will be a prime factor in achieving better use of recreation resources and better distribution of visitors. These purposes will be served also by more effective use of signs, literature, visitor information services, and other devices.

Greater competition among recreationists themselves must also be expected. Despite the overall abundance of resources, any particular section of a lake or river, any trail, any specific hunting area, or almost any facility or development site, can have conflicting or competing visitors. In water areas, for example, skin-divers, fishermen, swimmers, water-skiers, and boating enthusiasts often compete for access to and use of the resource—sometimes with

Effects of heavy use show in this campground in the Prescott National Forest, Ariz. Low vegetation is trampled out, soil compacted, large trees losing vigor.

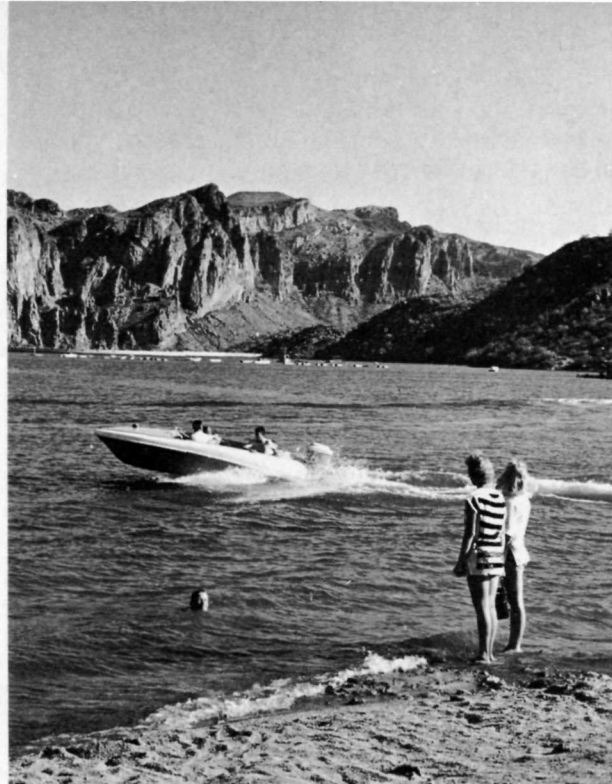
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disastrous results. A cross-country motor scooter meeting a string of horses or mules on a mountain trail can have serious results. Families sometimes try to monopolize choice campsites for weeks at a time. Positive actions to alleviate the pressures generated in competitive situations will be necessary.

The need for more intensive management of the total resources also can be readily seen. Even if the volumes of other uses were static, the increasing level of recreation use would require new emphasis on the multiple use management concept. For example, in the Southwest there are many narrow, steep canyon bottoms which preclude recreational facilities near the water and create difficult access problems. In these cases ways must be found to accommodate increased recreation use where water access for livestock and wildlife is critically important.

The prospect of greatly increased recreational use introduces the element of time into on-the-ground management decisions. Areas or sites identified as having high potential for future recreational use must be managed appropriately in the interim to preserve or enhance the recreational values.

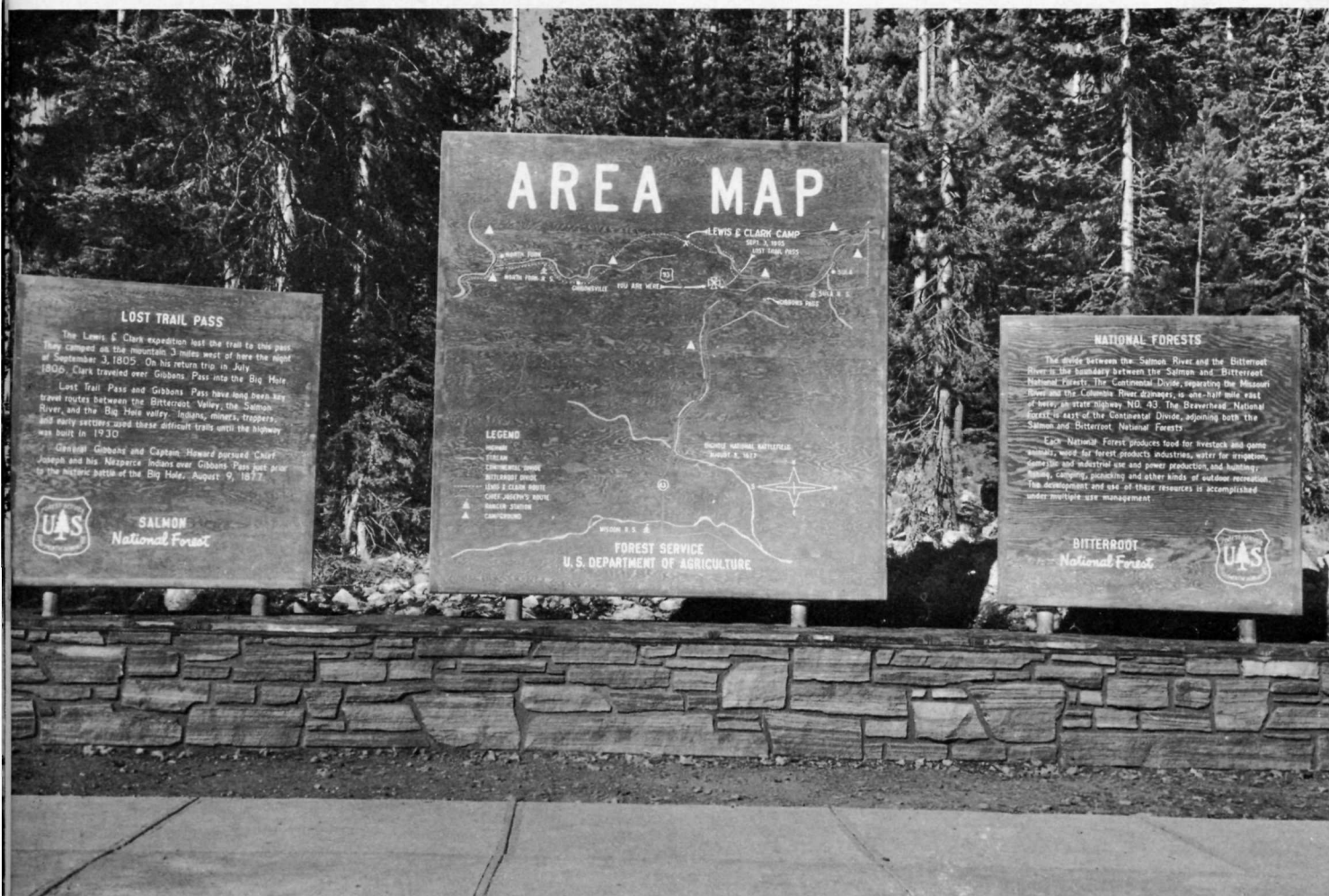


F-491905

Swimmers and boaters may want to use the same water area; Tonto National Forest, Ariz.

Sign in the Bitterroot National Forest in Idaho and Montana helps visitors to orient themselves.

F-508489



LOST TRAIL PASS

The Lewis & Clark expedition lost the trail to this pass. They camped on top of Mountain 3 miles west of here the night of September 3, 1805. On his return trip in July, 1806, Clark traveled over Gibbons Pass into the Big Hole.

Lost Trail Pass and Gibbons Pass have long been the travel routes between the Bitterroot Valley, the Salmon River, and the Big Hole valley. Indians, miners, trappers, and early settlers used these difficult trails until the highway was built in 1930.

General Crocker and Captain Howard pursued Chief Joseph and his Nezperce Indians over Gibbons Pass just prior to the historic battle of the Big Hole, August 9, 1877.



SALMON
National Forest

AREA MAP



NATIONAL FORESTS

The divide between the Salmon River and the Bitterroot River is the boundary between the Salmon and Bitterroot National Forests. The Continental Divide, separating the Missouri River and the Columbia River drainage, is one-half mile east of here in state highway NO. 83. The Beaverhead National Forest is east of the Continental Divide, adjoining both the Salmon and Bitterroot National Forests.

Each National Forest produces food for livestock and game animals, wood for forest products industries, water for irrigation, municipal and industrial use and power production, and hunting, fishing, trapping, prospecting and other kinds of outdoor recreation. The development and use of these resources is accomplished under multiple use management.

BITTERROOT
National Forest



III. RESOURCES AND ACTIVITIES

. . . Vast opportunities to do things; to participate to the limits of energy and imagination; to freely select and enjoy the host of resources and situations inherent in 186 million acres; these typify recreation in the National Forests . . .

The following sections described activities and resources under two broad categories: (1) Concentrated at developed sites, and (2) extensively dispersed through undeveloped areas. In addition, resource inventory, resource supply prospects, and resource management are briefly treated.

Recreation at Developed Sites

Sites are identified and selected for development as needed to create campgrounds, picnic areas, winter sports areas, and other facilities. The normal capacity of some 11,000 developed sites was 975,000 people at one time in mid-1964. This capacity is being steadily expanded through construction and rehabilitation programs (fig. 12).

About three-fourths of the capacity is in the West; the remainder is shared almost equally among the eastern, north central, and southern forests. Most of this development within the National Forests has been directed toward areas closest to local population centers or main routes of travel.

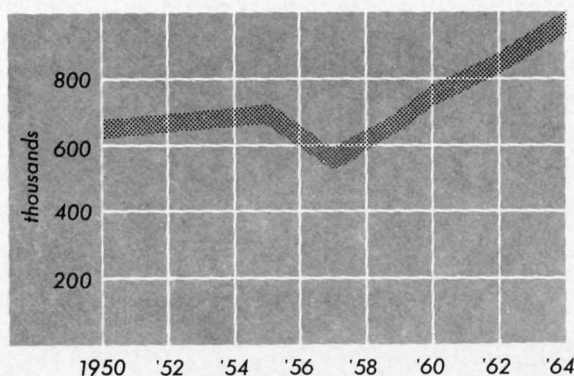


Figure 12.—Capacity of developed facilities (persons at one time) in National Forests, 1950–64.

In 1964 there were 133.8 million visits to the National Forest System; 27 percent of them took place at campgrounds and picnic sites.

The geographic pattern of National Forest recreation at developed sites is indicated by ranking the top 10 States according to records of visits. The estimate of visits in 1964 to the six place-of-visit categories listed above is the basis for the following ranking:

RECREATION VISITS AT DEVELOPED SITES, BY STATE, 1964

| State: | Million visits | Percent of total |
|------------|----------------|------------------|
| California | 10.85 | 21.0 |
| Oregon | 5.08 | 9.0 |
| Utah | 4.56 | 8.8 |
| Arizona | 3.92 | 7.6 |
| Colorado | 3.89 | 7.5 |
| New Mexico | 2.73 | 5.3 |
| Washington | 2.31 | 4.5 |
| Montana | 1.50 | 2.9 |
| Idaho | 1.49 | 2.9 |
| Tennessee | 1.02 | 2.0 |

ESTIMATED RECREATION VISITS AT DEVELOPED SITES, 1964

| Place of visit: | Million visits | Percent |
|---------------------------------|----------------|---------|
| Campgrounds | 14.15 | 27.4 |
| Picnic sites | 21.48 | 41.5 |
| Winter sports sites | 7.91 | 15.3 |
| Organization camps | 1.07 | 2.1 |
| Hotels and resorts ¹ | 5.72 | 11.0 |
| Recreation residence sites | 1.40 | 2.7 |
| | 51.73 | 100.0 |

¹ Includes other public service sites.

Although National Forest recreation takes place in 41 States and Puerto Rico, the 10 States in the tabulation accounted for 72 percent of the total visits to developed sites in 1964.

Camping

Most camping in the National Forests takes place at developed sites. Some wilderness travelers, hunters, or organized groups make camp without benefit of the usual facilities, but they are greatly outnumbered by more typical campers whose camps are near or even attached to their cars. Still, it is estimated that more than one-tenth of the overnight visits to the National Forest System take place in the open in undeveloped areas. Despite the trend toward day-use and motel accommodation, many visitors consider an overnight stay to be an essential part of their National Forest vacation.

National Forest campgrounds accommodated about 32 million camper-days in 1964. The normal capacity of these campgrounds was about 295,000 persons at one time. Thirteen percent of the 52,000

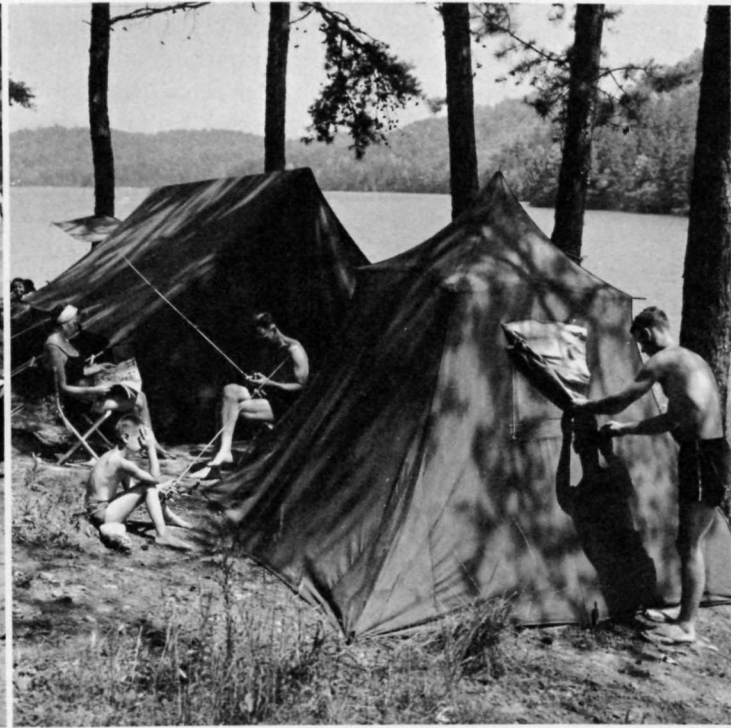
family camping units at developed sites were designed for trailer use; however, trailers and "camper" units frequently are parked at tent sites.

In 1964, 14.2 million visits to campgrounds, averaging $2\frac{1}{4}$ days in length, amounted to one-fourth of the total recreation time spent in the National Forests. By 1976 it seems likely that the number of camping visits will be several times as great. The rapid pace of facility construction and rehabilitation which has been attained in recent years will have to be accelerated substantially to meet this impact. Almost half of the existing campgrounds each receive less than 1,000 visits annually, and small, informal campgrounds will continue to be typical in National Forests.

One unique feature of National Forest camping opportunity is that it extends throughout the country. The variety and attractiveness of the camping sites mirror the changing landscape. Many of the sites are unsurpassed in natural beauty. Every one can be a convenient base of operations for a host of outdoor recreation experiences.



F-498182
Trailer camping; Apache National Forest in Arizona.



F-494681
Tent campers; Nantahala National Forest in North Carolina.

The geographic pattern of camping in the National Forests is indicated by the following tabulation:

| State: | 1964 visits to campgrounds (thousands) |
|------------------|---|
| California | 2,697 |
| Oregon | 1,487 |
| Utah | 1,364 |
| Colorado | 1,180 |
| Arizona | 1,088 |
| Washington | 998 |
| Idaho | 917 |
| New Mexico | 716 |
| Wyoming | 585 |
| Montana | 538 |

These States accounted for 82 percent of the total visits to National Forest campgrounds.

Picnicking

A picnic table and fireplace is the center of attention for most families visiting the National Forests. Travelers passing through the forests, nearby residents seeking relief from the heat, and others enjoying a brief outing in a forest environment make picnicking the most popular single use of the National Forests. All indications point toward a continuation of this popularity because of the close ties between picnicking and driving for pleasure.

Group picnicking is a traditional activity at many National Forest sites. Shelters or other special facilities are often maintained for the convenience of large groups of visitors.

Picnic shelter for groups; Cibola National Forest in New Mexico.
F-497725



F-470723
A memorable picnic in the Mount Baker National Forest, Wash.

Picnic areas are often developed near amphitheaters, swimming sites, or other locations especially valuable for day-use or group activities. On the other hand, relatively isolated picnic sites are developed at scenic locations along forest roads. These small units provide convenient rest areas where families can experience the forest environment in relative privacy.

The 23,500 family picnic units at developed sites received more than 21 million visits in 1964. Many of the picnic sites are overused. Repetitive use of favorite areas by local people attests to the popularity of National Forest sites; it also helps explain why overuse develops despite new construction and maintenance programs.

Picnic sites often are situated in the vicinity of campgrounds. The relationship was so close in years past that camp and picnic units were combined in reporting statistics on National Forest recreation facilities. Newly developed sites now tend to have a picnic area well separated from camping areas, just as tent camp facilities tend to be separated from trailer facilities. Some campsites still receive picnic use, but the reverse is usually discouraged (fig. 13).

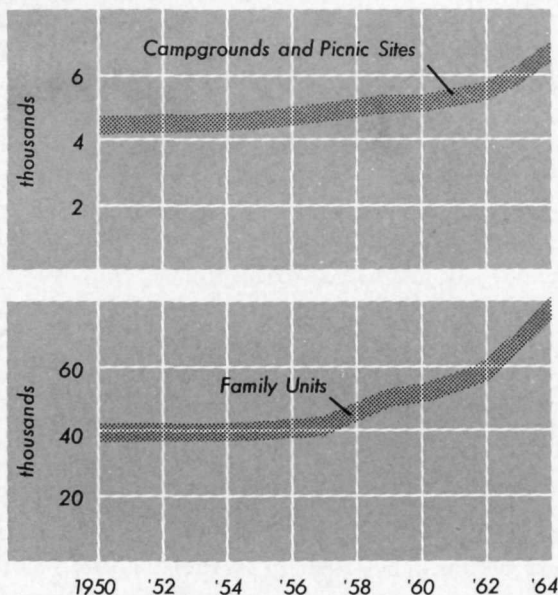


Figure 13.—Trends in numbers of National Forest campgrounds and picnic sites, and their capacity in family units, 1950-64

The geographic pattern of picnicking suggests the importance of climatic relief as a factor in day-use of the National Forests. The 10 States with the most picnic use are as follows:

| State: | 1964 visits to picnic sites (thousands) |
|----------------------|--|
| California | 2,410 |
| Utah | 2,386 |
| Arizona | 2,110 |
| New Mexico | 1,758 |
| Colorado | 1,317 |
| Oregon | 1,283 |
| Tennessee | 998 |
| North Carolina | 699 |
| Arkansas | 622 |
| Montana | 575 |

Winter Sports

The National Forest System contains many of the best combinations of terrain and snow conditions available anywhere for skiing and other winter sports. One hundred and ninety-six of these have been developed and are heavily used. Squaw Valley in the Tahoe National Forest, of 1960 Winter Olympic fame, is one of the best known.

Skiing is by far the most popular winter sport. In 1964 there were about 655 ski lifts or tows in the National Forests—about half of them rope tows.

Many chair-lifts are summer as well as winter attractions. Nine new winter sports sites were opened during 1964. At existing sites, new ski lifts were added; overnight and other accommodations were built, parking areas were enlarged, and better access roads developed. This work is needed. Since 1950, visits to National Forest winter sports sites have increased from 1.5 million to 7.9 million in 1964.

The growth in opportunity to participate in winter sports in the National Forests has resulted from the effective combination of local initiative, responsive administration of public properties, and research. Typically, a winter sports site is developed after careful study by experts representing all concerned. Special use permits are issued by the Forest Service and private capital is used to construct facilities—often valued at several million dollars. Each area is designed and developed according to specific site plans. Operation of the facility is the business of the concessioner; a portion of the receipts flow into the U.S. Treasury. The Forest Service supervises the operation as needed to protect the visitors' interests and safety and to assure proper resource management.

The capacity of National Forest winter sports sites in 1964 was 242,000 people at one time. Forest Service research and administrative workers have pioneered in snow avalanche control to safeguard the tens of thousands of skiers concentrated on these slopes during the peak season. Forest Service snow rangers are recognized as among the world's experts in predicting, identifying, and removing snow avalanche hazards.

Special mount and 105-mm. recoilless rifle used in avalanche control, Wasatch National Forest, Utah.

F-496212



Eighty percent of the major ski areas in the West are located entirely or partially on National Forest land. The relatively small areas of National Forest land in Vermont and New Hampshire include 14 winter sports sites.

| State: | 1964 visits to winter sports sites (thousands) |
|------------------|---|
| California | 2,391 |
| Colorado | 1,048 |
| Washington | 991 |
| Oregon | 844 |
| Utah | 562 |
| Vermont | 445 |
| Idaho | 337 |
| Michigan | 333 |
| New Mexico | 225 |
| Montana | 179 |

These 10 States account for 93 percent of the 1964 visits to National Forest winter sports areas. Many potential sites await development.

Organization Camps

Recreation use of National Forest land by organized groups has been a traditional activity throughout the country. Granting special use permits to Boy Scouts, Girl Scouts, and other character-building groups interested in developing appropriate recreational facilities has been a Forest Service policy since the beginning. The capacity and diversity of such camps has increased markedly in the last two decades. There are more than 570 camps now in operation and many operate continuously from May to September. Their total capacity is almost 75,000 people (fig. 14).

All of the organization camps on National Forest land are privately operated. Nearly all of the camp structures, including 87 percent of the total capacity, are privately owned. Located on privately owned land within or adjacent to National Forest boundaries are many similar structures. Their total capacity

Skiers in the Mount Hood National Forest, Oreg.

F-499444



is six times that of the camps on National Forest land. These camps draw on the adjoining National Forest land for their environment and many recreation opportunities such as hiking, riding, and fishing. In the East especially, there is opportunity for developing organization camps on private lands intermingled with National Forest lands.

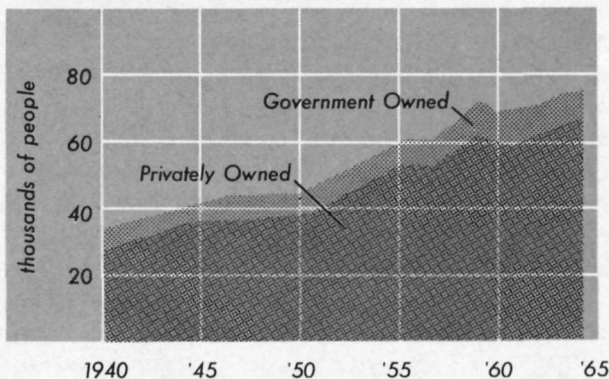


Figure 14.—Capacity of organization camps in the National Forests, 1940–64.

Nominal annual fees are required in connection with the permits for camps on National Forest land. No special use permits are granted for sites that may need to be developed for general public use in the foreseeable future. Most of this recreational use of National Forest land is in the West in locations where blocks of public land include a large share of the total opportunity available.

California tallied a third of all visits to organization camps on National Forest land in 1964. More than 80 percent of all visits to organization camps on National Forest land took place in the States listed below.

| State: | 1964 visits to organization camps (thousands) |
|------------------|--|
| California | 360 |
| Oregon | 175 |
| Utah | 81 |
| Arizona | 66 |
| Washington | 55 |
| New Mexico | 34 |
| Colorado | 30 |
| Idaho | 28 |
| Wyoming | 21 |
| Louisiana | 20 |

Perhaps more young people have been introduced to forest recreation activities through organized camping than by any other means. Such camps constitute an effective use of a very small area of the National Forests.

Resorts and Commercial Services

Permits are issued for development of resorts and other service facilities in situations where accommodations and services needed by National Forest visitors are not available on private land. Use of National Forest land for construction of hotels, motels, stores, service stations, dude ranches, vacation resorts, etc., is permitted under conditions consistent with overall National Forest administration policies when there is a public need for the facilities and services. Buildings must be developed in accordance with acceptable structural standards and their design must be appropriate to the forest environment. Terms of the permit reserve sufficient administrative control to insure protection of visitors' health and safety and other aspects of the public interest.

Most resorts on National Forest land are in the West, and almost all have been developed by private enterprise. A few, such as famed Timberline Lodge built on Mount Hood in Oregon under emergency labor programs in the thirties, are pub-



F-499833
Lutheran Church camp on land under special use permit; Sawtooth National Forest, Idaho.

licly owned. These too are operated by concessioners (fig. 15).

The capacity of resorts on National Forest land has risen sharply in the past 10 years. Like organization camps, they make effective public use of a very small portion of the available resources. They provide a significant addition to the scope of National Forest recreation because they fill a need not met by campgrounds or similar facilities. Resorts on private land within or near National Forest boundaries have a much greater capacity and volume of use.

Commercial recreation facilities of all kinds under special permit are planned and developed to harmonize with the forest setting as well as to meet the needs of the public. A wide variety and high quality of recreation opportunities can be developed where facilities are mutually complementary and the total result is well balanced and coordinated. This is not always possible with facilities on private lands even though physical location makes them a part of the total recreation opportunity within National Forest boundaries.

There are more than 400 hotels, lodges, and resorts on National Forest sites with a capacity of some 52,000 people at one time. The relatively short length of visits to them and their heavy, often year long use combine to create a very large volume of

Trail riders at a dude resort; Shoshone National Forest in Wyoming.
F-484776

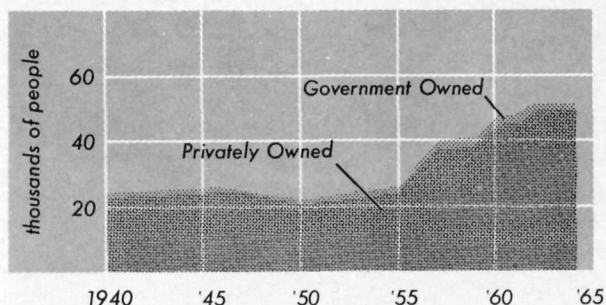


Figure 15.—Capacity of resorts on National Forest land, 1940-64.

visits each year. Some 5.7 million visits in 1964 indicate the popularity of these resorts. The following ranking shows the geographic pattern:

| State: | 1964 visits to hotels and resorts (thousands) |
|---------------------|--|
| California | 2,334 |
| Oregon | 1,220 |
| Arizona | 589 |
| Colorado | 257 |
| Wyoming | 230 |
| Washington | 200 |
| Idaho | 161 |
| Montana | 129 |
| New Hampshire | 76 |
| Utah | 76 |

These States included 92 percent of the recreation visits to hotels and resorts.

Special facilities on National Forest land having some relation to outdoor recreation are extremely varied. Some special use permits in this category are listed below:

| Kind of permit: | Number in force, 1963 |
|-------------------------------------|-----------------------|
| Airport beacon | 126 |
| Boat dock, wharf | 326 |
| Camp, recreation | 131 |
| Fish hatchery | 70 |
| Organization site | 756 |
| Packers station | 651 |
| Park and playground | 172 |
| Rifle and target range | 102 |
| Shelter | 72 |
| Store or shop | 97 |
| Tramway | 20 |
| Winter sports, ski lifts, etc. | 249 |

Recreation Residences

Construction of cabins or summer homes for private use is permitted on certain National Forest development sites. This particular recreational use originated more than 50 years ago when countless

potential development sites on lake shores and elsewhere were not being used. By 1940 there were more than 11,000 recreation residences on National Forest land under special use permit. In the early days, these were cabins or other simple structures clustered in small groups. Water systems, plumbing, and even good road access were unusual. Visits to them, entailing much preparation and hard travel, ordinarily were made once or twice a year. Forest and water resources and other recreationists were practically unaffected.

In the postwar years the number of occupied residence sites increased. In 1964 there were 19,342 cabins and summer homes in use under special permits. Each permittee pays an annual fee for the privilege of developing and occupying the site. Fees are based on the value of the land. The typical residence now is more like its city counterpart than a rustic cabin. Many clusters of summer homes have grown to resemble small communities.

The most desirable sites appropriate for summer homes have already been developed in most localities. New sites are available only in Alaska and deep in some western National Forests. In the East, where private land is available for such use within and outside National Forest boundaries, and where public demand for outdoor recreation is concentrated, there is seldom justification or opportunity for granting new special use permits for summer homes. On the contrary, in locations where recreational pressures have built up beyond expectations, and where lake shore access and high-quality development sites are very limited, it has become necessary to arrange for eventual cancellation of some permits to make room for public facilities.

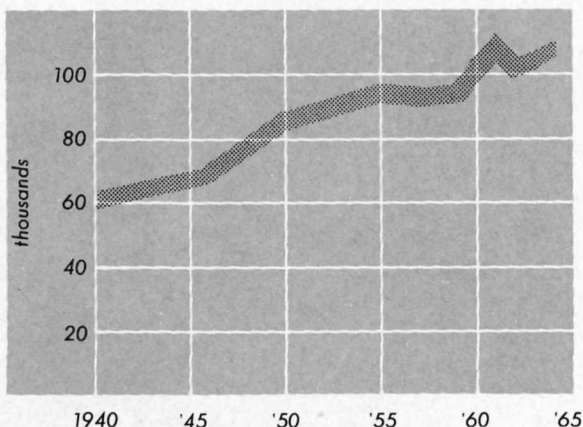
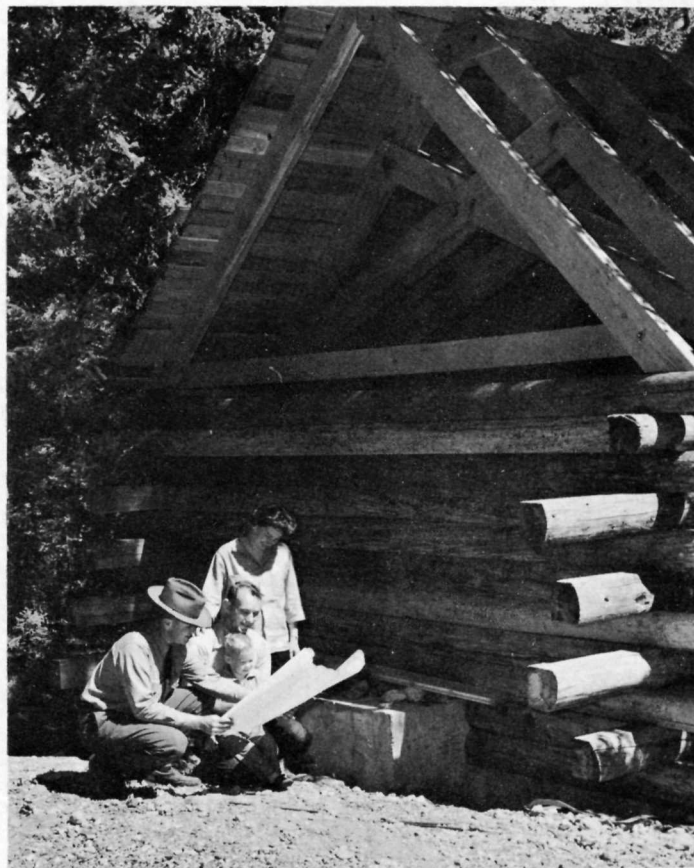


Figure 16.—Capacity of recreation residences on National Forest land, 1940–64.



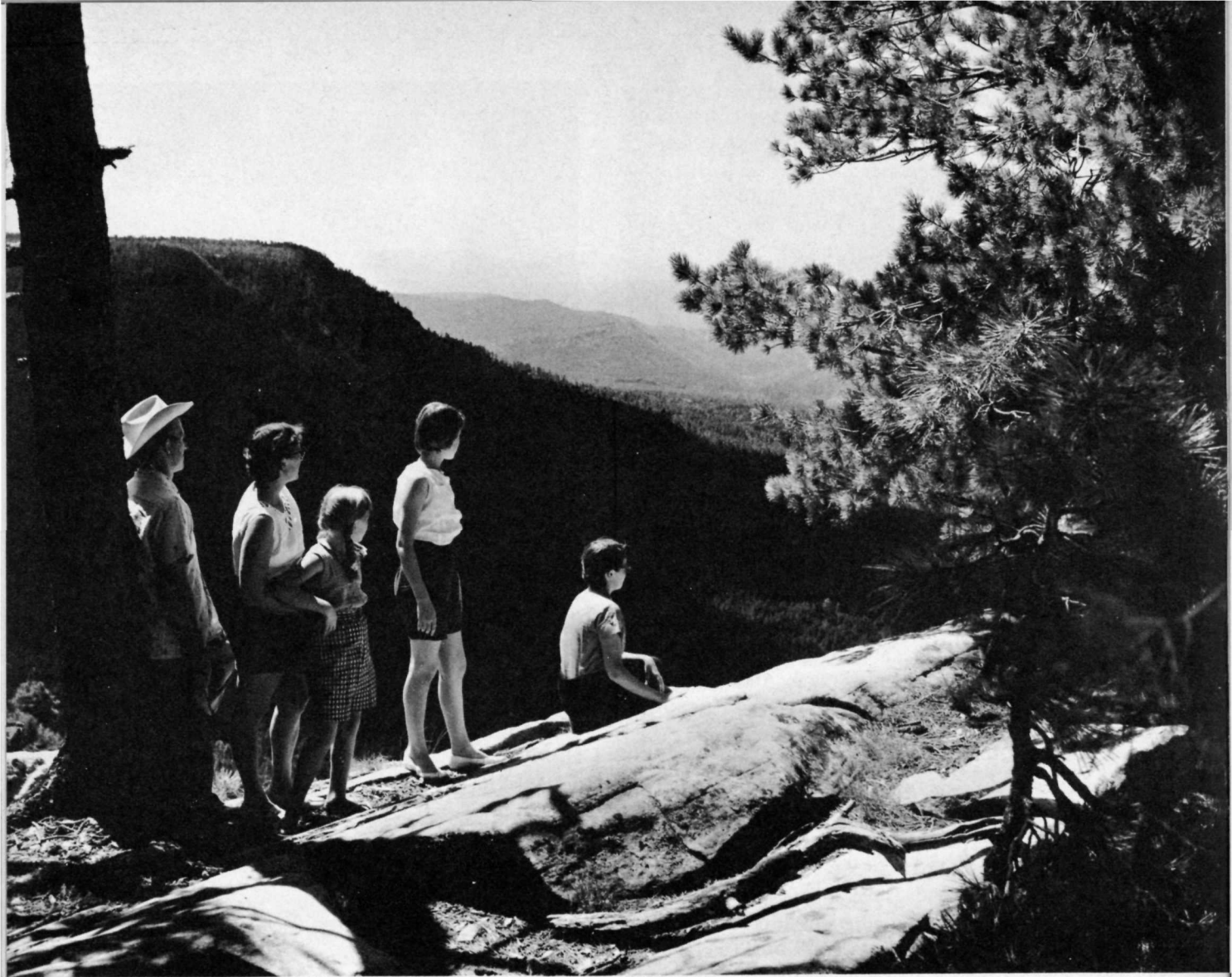
F-499842

Ranger looks over blueprints of a partially completed summer home; Sawtooth National Forest, Idaho.

There are 2,215 of these sites throughout the National Forests. The average site includes about 10 residences. Many sites are much larger; many others have less than five residences. All together, recreation residences can normally accommodate about 106,000 people at one time (fig. 16).

About half of the recreation visits to summer home sites take place in California. About 87 percent of all recreation visits to summer homes in the National Forests took place in the States listed below.

| State: | 1964 visits to recreation residences (thousands) |
|------------------|--|
| California | 662 |
| Utah | 92 |
| Montana | 79 |
| Oregon | 75 |
| Washington | 66 |
| Arizona | 66 |
| Colorado | 55 |
| Idaho | 52 |
| Wyoming | 42 |
| Tennessee | 27 |



Viewing the scenery from the Mogollon Rim; Coconino National Forest in Arizona.

F-487843

Observation and Information

Observation sites have been developed along roadside and waterfront zones to refresh and inspire National Forest visitors. Frequently these sites include informational signs or structures to assist visitors in orienting themselves and in understanding their environment. In many cases picnic tables and other facilities are placed nearby. Magnificent views are typical of these vantage points. The tower at the top of Devil's Head Mountain on the Rampart Range drive in Colorado, Pinnacle Towers overlooking the tropical rain forest in Puerto Rico, the view of Mendenhall Glacier in Alaska, and views

of Lake Cumberland in Kentucky are noteworthy examples.

By 1964, 290 sites had been developed specifically as observation points. Almost 15,000 people could be occupying them at one time without overcrowding. The landscapes and waterscapes viewed from these points are managed to maintain or enhance the esthetic values which justify their construction. Although most observation sites are in the West, the White Mountain National Forest in New Hampshire and other eastern forests also contain excellent observation points. More opportunities for observation sites are being created as new road development improves access to areas of outstanding scenic beauty.

Visitor Information Centers provide sources of interpretive services, on-the-ground assistance, and information to thousands of visitors. The Sabino Canyon Visitor Center, part of the Catalina Mountains recreation complex in the Coronado National Forest near Tucson, Ariz., is a good example. This includes exhibits, nature trails, a forest naturalist, and other interpretive services. Visitors are helped and encouraged to learn about the changing vegetation zones from the desert floor to the mountain crest, and about other local features of the area. Nine such centers are already in use or well along toward completion. Nature trails, campfire talks, exhibits, and other interpretive and informational media are gradually becoming available throughout the National Forest System.

Historic sites or other areas of unusual interest are also developed for visitor use. The Palomar Observatory in California, Juniper Springs in the Ocala National Forest, Fla., the Madison River Canyon Earthquake area in the Gallatin National Forest, Mont., Ratcliff Lake in the Davy Crockett National Forest, Texas, and the Guadalupe Caves in the Lincoln National Forest, N. Mex., are examples of specific sites or small areas where large numbers of visitors require development of recreation facilities.

Dispersed Recreation Activities

The primary purpose of about two-thirds of all visits to the National Forests is to participate in activities such as hiking, mountain climbing, horse-back riding, hunting, fishing, boating, or wilderness travel, and general enjoyment of the forest environment. All of these activities require few, if any facilities but do create increasing needs for services and management. Visitors interested in these forms of outdoor recreation may not visit developed sites or use any facilities in the course of their stay. On the other hand, visitors may use a campground or other facility as a base of operations.

Back-country hunting, fishing, hiking, and riding depend more and more upon the wide open spaces of forests and mountain ranges in the National Forest System.

Swimming and Boating

The growing importance of water-related recreation is emphasized repeatedly in the Outdoor Recreation Resources Review Commission reports. Swimming appears destined to become the most popular single outdoor recreation activity. The rise in recreational boating is well documented by out-board motor and boat sales trends. Water areas of the National Forests can be expected to share fully in these growing activities.

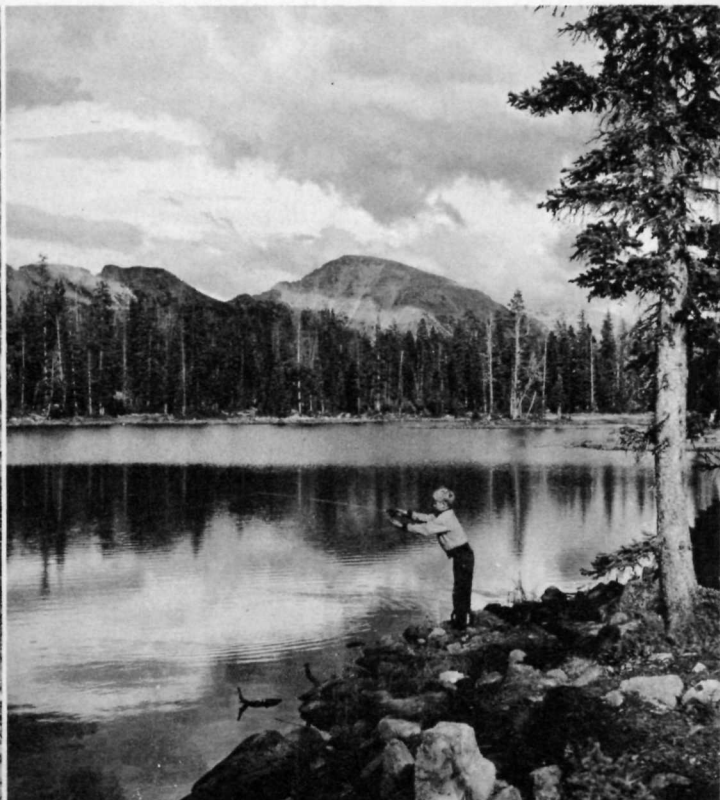
Nature trail in the Olympic National Forest, Wash.

F-499447



An eager fisherman in the Wasatch National Forest, Utah.

F-490101





F-512596

National Forest beaches like this one in Virginia receive increasingly heavy use.

A large percentage of boating and swimming takes place without benefit of boat launching ramps, bathhouses, or other facilities. They are essentially dispersed recreation activities even though site development is sometimes involved.

Assured public access to recreational waters is a key feature of the National Forest System. Road construction, right-of-way acquisition, and development of parking areas and launching ramps are examples of actions to improve public access. Two million acres of lakes in the National Forest System and countless miles of rivers and large streams amount to a major public asset.

Site development in waterfront areas depends directly on the volume of use. In areas of long warm seasons and heavy use, concessioner-operated marinas, bathhouses, and other facilities become necessary. Boat launching ramps are built where access to the water is difficult and the demand is great enough to justify the investment. About 240 swimming sites and about 520 boating sites have been developed to date. New water impoundments almost always generate enough use to warrant facility development.

Swimming facilities are usually developed in conjunction with organization camps or in other areas

where general recreation activity is concentrated. About half of all bathhouses on National Forest land are privately owned under special use permits.

The Boundary Waters Canoe Area in northern Minnesota deserves special mention as the Nation's finest wilderness canoe area. This lake- and river-studded land together with the adjacent Quetico Provincial Park in Canada preserves intact the legendary voyageur routes of the region.

Elsewhere, white-water trips on the Salmon River—the famed “River of No Return”—through four National Forests in Idaho, boating in the Flaming Gorge area of the Green River in Utah, and float trips down the Ausable River in Michigan are rare boating experiences.

The pattern of anticipated water impoundments suggests that the greatest increases in National Forest boating opportunities will take place in the South.



F-482073

Successful fishing party; Umpqua National Forest in Oregon.



A white-water float trip on the Salmon River; Salmon National Forest, Idaho.

F-501044

Fishing

The opportunity to fish in clear, sparkling streams, lakes, and reservoirs is one of the most important recreational attractions. About one of every six visits to the National Forests is for the primary purpose of fishing. The variety of game fish species and prize fishing waters, records of fish caught, and the enthusiasm of fishermen for their favorite spots are some of the factors tending to increase the numbers of visitors.

National Forest fishing includes a wide variety of game fish and environments, from black bass in Florida to the golden trout of the High Sierra. Pursuit of muskellunge and pike in Minnesota, cut-throat trout in the upper Colorado River, rainbow and steelhead trout in Oregon and Washington, and salmon in Alaska, among others, is the main object of many family expeditions into the National Forests. The popularity of fishing in the National Forests varies considerably with geography, as the figures for States indicate. However, virtually every National Forest area includes some prime fishing waters.

| State: | Fishing visits, 1964 (thousands) |
|------------------|-------------------------------------|
| California | 2,458 |
| Colorado | 2,429 |
| Oregon | 1,589 |
| Michigan | 1,561 |
| Utah | 1,149 |
| Idaho | 1,140 |
| Arizona | 1,111 |
| Montana | 1,097 |
| Arkansas | 870 |
| Minnesota | 852 |

These 10 States accounted for 73 percent of the 19.4 million visits in 1964 made for the primary purpose of fishing. Countless thousands of other visitors fished more casually while on hunting trips, traveling through wilderness, picnicking, or engaged primarily in other types of recreation.

Public access routes to recreational waters, the forest environment, water purity, intensive fish management practices, and the availability of campsites and other facilities contribute greatly to the popularity of fishing in the National Forests. Reduction of public access to private landholdings also explains in part the fact that sport fishing is increasing more rapidly in the National Forests than elsewhere.

The number of fishing visits is expected to triple in the next 10 years. This poses a clear challenge to the States as managers of the fish populations and to the Forest Service as the manager of much of the fish habitat.

Hunting

The traditional use of National Forests as public hunting grounds has never diminished. These forests, lands, and waters are the home for uncounted millions of game animals and birds—large and small. Present populations are estimated to amount to more than one-third of all the big-game animals in the United States. Pronghorn antelope, black bear, white-tailed deer, elk, Alaska brown bear, mountain lion, moose, bighorn sheep, mule deer, grizzly bear, mountain goat, and wild boar are among the species hunted each year. Smaller animals such as fox, racoon, rabbit, and squirrel are a prime recreational attraction—especially in eastern National Forests. Upland game birds such as grouse, quail, and turkey are the objects of many hunting trips. Migratory waterfowl are sought by hunters on some strategically located National Forest lands.

Big game is the objective of most National Forest hunters. State laws are generally effective in developing and maintaining thrifty populations. In some cases the harvest by hunters should be markedly increased to prevent deterioration of the habitat through overuse and decimation of oversize herds through starvation and malnutrition. After a long, steady increase, the population of big-game animals in the National Forests and the number harvested annually appear to have stabilized since the 1960 estimate.

The following data indicate general trends:

| Year: | <i>Estimated population</i> | <i>Estimated harvest</i> | <i>Percent harvested</i> |
|------------|---------------------------------|------------------------------|------------------------------|
| 1920 | 500,000 | 15,000 | 3 |
| 1930 | 1,000,000 | 68,000 | 7 |
| 1940 | 2,000,000 | 216,000 | 11 |
| 1950 | 2,500,000 | 358,000 | 14 |
| 1960 | 4,400,000 | 682,000 | 16 |

The increase in big-game populations is the direct result of more favorable habitat situations created by timber harvesting, fire protection, and improved game management techniques. More accurate census techniques in recent years are responsible for some of the differences between the 1950 and 1960 estimates.



F-502233
Trophy elk in the Gallatin National Forest, Mont., 1962.

A young Assistant Regional Forester in the Southwestern Region, Aldo Leopold, eventually became the acknowledged "father" of the new science of wildlife management. Today the fruits of this science can be seen in all regions. For example, in Virginia, where white-tailed deer were once virtually extinct, 8,900 were taken in the National Forests in 1964 as part of the legal harvest. The increasing wild turkey populations in the Appalachians signify another success with a species that is "big game" to many. The outlook for scientific management of wildlife habitat and populations holds promise of creating even more favorable hunting opportunities.

The species composition of the 1964 legal big-game harvest on the National Forests was estimated to be as follows:

| Species: | Number | Percent |
|-------------|---------|---------|
| Deer | 573,000 | 86.4 |
| Elk | 65,200 | 9.8 |
| Bear | 9,400 | 1.4 |
| Other | 15,700 | 2.4 |
| Total | 663,300 | 100.0 |

To indicate the geographic pattern of big-game hunting in the National Forests, data on legal kills and on hunting visits are used in listing the 10 leading States in each category.

| State: | Legal big-game harvest, 1964 (thousands) |
|------------------|--|
| Colorado | 93 |
| Utah | 89 |
| Oregon | 71 |
| Montana | 66 |
| Idaho | 60 |
| Wyoming | 50 |
| Washington | 35 |
| California | 29 |
| Michigan | 22 |
| Arizona | 21 |

| State: | Big-game hunting visits, 1964 (thousands) |
|------------------|---|
| California | 921 |
| Oregon | 643 |
| Montana | 508 |
| Colorado | 482 |

Hunting at a wildlife clearing; Jefferson National Forest in Virginia. F-487971

Big-game hunting
visits, 1964
(thousands)

| | |
|------------------|-----|
| Michigan | 481 |
| Virginia | 452 |
| Idaho | 452 |
| Washington | 391 |
| Utah | 364 |
| Arizona | 215 |

The States listed represent 81 percent of the total National Forest big-game harvest and 71 percent of the visits primarily for big-game hunting. Clearly, the number of big-game animals harvested is not an adequate measure of the enjoyment found in National Forest hunting opportunities.

The quest for squirrels, rabbits, upland birds, ducks, and other small game accounts for more than a third of all hunting visits to the National Forests. Most small-game hunting takes place on private land, but it is logical to expect that a larger share of this hunting will have to be absorbed by the National Forests and other public lands as access to private lands becomes more restricted. The following tabulation illustrates the eastern orientation of small-game hunting:

| State: | Small-game hunting visits, 1964 (thousands) |
|----------------------|---|
| Michigan | 469 |
| Virginia | 322 |
| Missouri | 265 |
| Tennessee | 257 |
| Kentucky | 227 |
| California | 192 |
| Mississippi | 163 |
| Georgia | 140 |
| Montana | 135 |
| North Carolina | 129 |

The 10 listed States accounted for 59 percent of the small-game hunting on National Forests in 1964.

Hunting and fishing visits consistently make up about one-fourth of all recreational visits to the National Forests. Trend data for the period 1959-64 indicate that hunting and fishing visits to the National Forests are increasing much faster than the total number of hunting and fishing licenses sold by the States (fig. 17).

Road improvement and construction is a key element both in creating hunting and fishing pressures and in satisfying the increased demand. Today sportsmen tend to operate near their cars. Few of them penetrate more than a mile or so into roadless areas on foot, even when hunting big game. About 194,000 miles of forest development roads



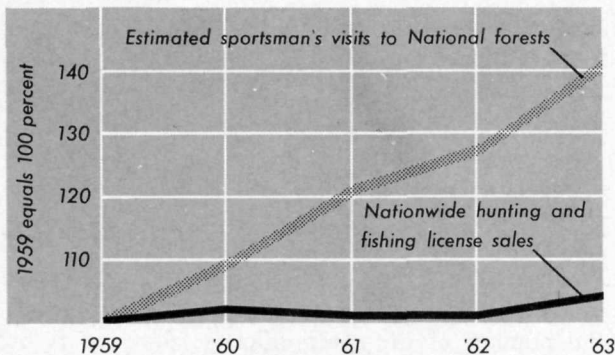


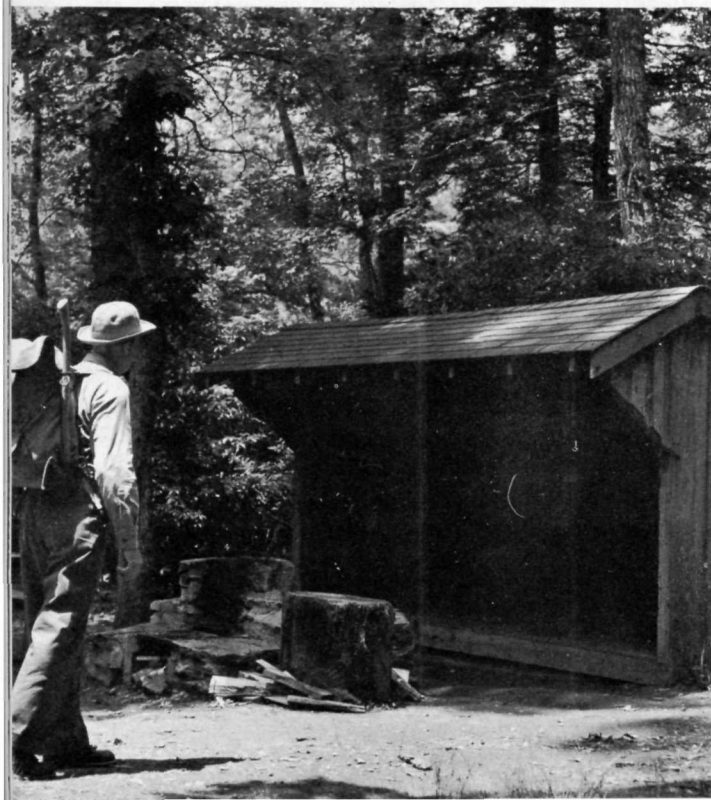
Figure 17.—Trends of National Forest sportsman visits and licenses sold, 1959–63.

were available in 1964. The road system is being expanded rapidly with appropriated funds and through new construction by purchasers of National Forest timber. The trail system of some 105,000 miles, to a lesser extent, also serves to distribute hunters and fishermen. The prospects of satisfying the coming surge of hunters and fishermen would be much less favorable without a concurrent expansion of these construction programs.

Fish and wildlife resources and their management present one of the sharpest challenges of National Forest administration in the years immediately ahead. The States, as managers of the fish and wildlife populations, and the Forest Service as manager of the fish and wildlife habitat in the National Forests, must meet that challenge together.

Hiker on the Appalachian Trail in the Nantahala National Forest, N.C.

F-494724



Hiking and Riding

A hike through the woods along some inviting trail or a short walk to enjoy a particular scenic area are a part of almost every National Forest experience regardless of the primary purpose of the visit. But hiking for its own sake is commonplace along the trails and back roads which lace the National Forest System. Scout groups and other visitors sometimes pack their equipment on their backs and journey through the forests for days or weeks at a time.

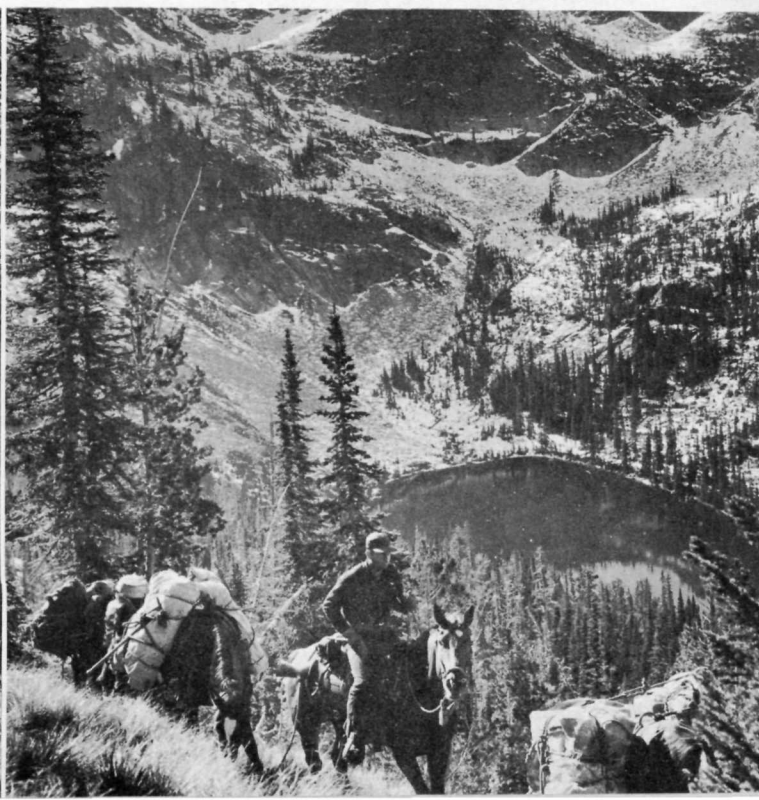
Famous trails pass through the National Forests. The Appalachian Trail, which traverses 8 National Forests and 12 States, is well known to eastern Americans. The Long Trail in Vermont and the Skyline Trail in the Northwest are examples of unsurpassed hiking opportunities.

In the West, horses and pack stock are traditional in cross-country travel. Frequently pack animals are used to reach a remote area and visitors then spend a week or two on foot in the back country. After World War II, jeeps became quite popular for off-road travel in the National Forests. The cross-country scooter is the latest development for travel in roadless areas, one that has aroused considerable opposition from back-country travelers who do not use motor propulsion.

Mountain climbing is a highly specialized activity closely allied with hiking. Challenges range from a short-winded scramble up a steep hill to

Pack string in the Bob Marshall Wilderness Area, Lolo National Forest, Mont.

F-496254





F-483666
Trail riders in the Pecos Wilderness Area, Santa Fe National Forest, N. Mex.

technical problems of ascending sheer cliffs. Kings Ravine in New Hampshire, the North Cascades, the Sawtooth Mountains of Idaho, and the Needles in South Dakota are examples of well-known mountain climbing areas in the National Forests.

About half of all visits to the National Forests for the purpose of hiking and riding take place in California and the Northeast. Other visits for this purpose are quite evenly divided among the other regions. It is significant that hiking is most important on areas nearest to population centers. The Outdoor Recreation Resources Review Commission found that in popularity, walking for



F-487505
Hikers admiring the Sierra Divide and Palisade Glaciers, Inyo National Forest, Calif.

pleasure is only exceeded by driving for pleasure and by swimming.

"Nature" and interpretive trails are giving new impetus and purpose to hikes through the forest. For self-guidance by visitors, these trails are equipped with labels, signs, and interpretive displays along the way.

Wilderness Recreation

Wilderness travel is a unique recreational experience; for many people it is the highest form of outdoor recreation. Scenic beauty, solitude, out-





U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE


NATIONAL FOREST WILDERNESS AND

PRIMITIVE AREAS

JANUARY 1, 1965

 WILDERNESS
(UNITS OF THE NATIONAL
WILDERNESS PRESERVATION SYSTEM)

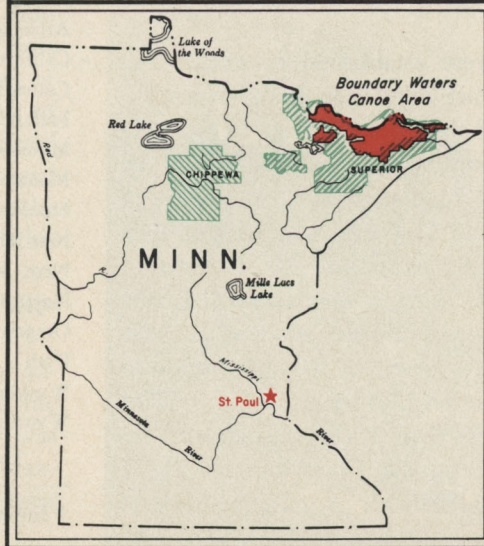
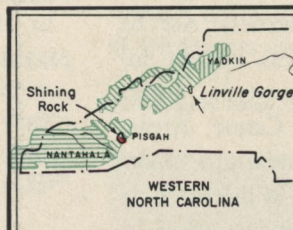
 PRIMITIVE AREAS

 NATIONAL FORESTS AND
PURCHASE UNITS

★ STATE CAPITALS

○ REGIONAL HEADQUARTERS

Scale - miles
0 50 100 150 200



U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

NATIONAL FOREST WILDERNESS AND

PRIMITIVE AREAS

JANUARY 1, 1965

■ WILDERNESS
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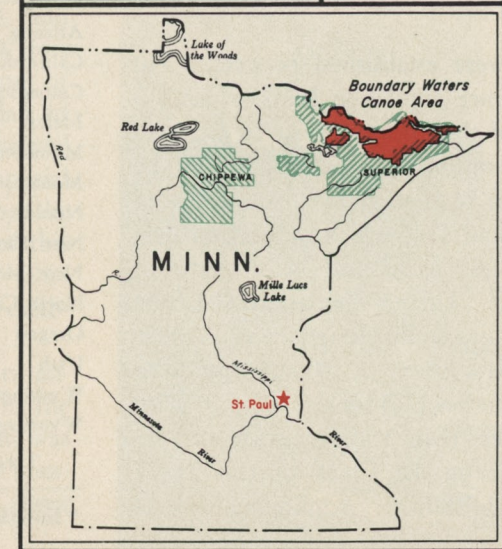
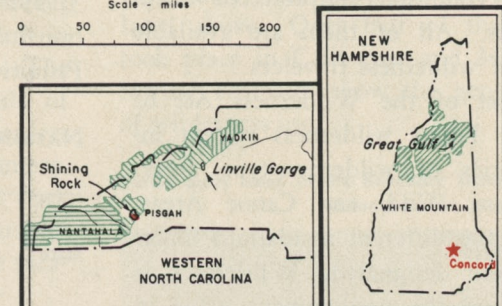
■ PRIMITIVE AREAS

■ NATIONAL FORESTS AND
PURCHASE UNITS

★ STATE CAPITALS

○ REGIONAL HEADQUARTERS

Scale - miles
0 50 100 150 200



standing hunting and fishing opportunities, vast distances, and the absence of anything manmade, combine to create unparalleled opportunities that are available to all Americans—and that will await generations yet unborn. The remaining wilderness is truly a national resource; its attractions transcend the barriers of distance and time.

Paradoxically, wilderness visitors usually travel in groups in their quest for solitude and remoteness. Pack and saddle trips under the guidance and assistance of experienced outfitters are commonplace. The fellowship of the evening campfire and the help of cooks and wranglers are added to the enjoyment of natural beauty. Organized trail-riding expeditions account for much wilderness travel. Scout encampments in remote areas as a base for wilderness adventures are a part of the pattern. Family groups and individuals, of course, also penetrate the wilderness on foot or horseback, or by canoe.

Wilderness vanished long ago from much of the country; the remnants are treasured for their recreational opportunities and for scientific and other inherent values. Many of the finest examples of remaining wilderness conditions are protected within the National Forests. All of them are available for the enjoyment of wilderness travelers.

Prior to enactment of the Wilderness Act of 1964, the National Forest wilderness system included four categories of wilderness-type areas: Primitive, Wilderness, Wild, and Canoe Areas. These names reflect the different regulations under which the areas were designated. Wilderness is the basic resource and the predominant value in each case.

Primitive Areas were established between 1930 and 1939 under former regulation L-20, which authorized the Chief of the Forest Service to establish areas where the primitive environment would be maintained. In 1939 regulation L-20 was replaced by regulations U-1 and U-2 which authorized designation of Wilderness Areas and Wild Areas in the National Forests. Under regulation U-1, the Secretary of Agriculture could designate as Wilderness Areas appropriate tracts of 100,000 acres or larger in size. Regulation U-2 set the size for Wild Areas at 5,000 to less than 100,000 acres and required the signature of the Chief of the Forest Service for their establishment. Administration was

identical in either case. Natural conditions of the environment were preserved; commercial timber cutting, roads, motor travel, and permanent development were prohibited within the areas except for essential administrative needs.

Many of the Primitive Areas were designated as Wilderness or Wild Areas after the 1939 regulations were established. On January 1, 1964, the National Forest wilderness system comprised 141½ million acres in 86 areas administered by the Forest Service in 14 States.

The National Wilderness Preservation System is composed of federally owned areas designated by the Congress as wilderness areas. These areas are to be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness. The law requires that the Secretary of Agriculture shall, within 10 years, review each area classified as "primitive" and report to the President his findings as to its suitability or unsuitability for preservation as wilderness.

Provisions of the Wilderness Act of September 3, 1964, placed National Forest lands in the National Wilderness Preservation System as follows. Primitive areas are also tabulated by States.

NATIONAL FOREST WILDERNESS AND PRIMITIVE AREAS, JANUARY 1, 1965

| State | Wilderness | | Primitive Areas | | Net acreage in both classes |
|----------------|-----------------|-------------|-----------------|-------------|-----------------------------|
| | Number of units | Net acreage | Number of units | Net acreage | |
| Arizona | 5 | 422,990 | 4* | 250,936 | 673,926 |
| California | 13 | 1,256,884 | 8 | 563,152 | 1,820,036 |
| Colorado | 5 | 274,859 | 6 | 554,283 | 829,142 |
| Idaho | 1* | 987,910 | 3 | 1,642,388 | 2,630,298 |
| Minnesota | 1 | 886,673 | 0 | 0 | 886,673 |
| Montana | 5* | 1,482,567 | 4 | 417,140 | 1,899,707 |
| Nevada | 1 | 64,667 | 0 | 0 | 64,667 |
| New Hampshire | 1 | 5,400 | 0 | 0 | 5,400 |
| New Mexico | 5 | 678,661 | 3* | 335,424 | 1,014,085 |
| North Carolina | 2 | 21,055 | 0 | 0 | 21,055 |
| Oregon | 9 | 662,847 | 1 | 86,700 | 749,547 |
| Utah | 0 | 0 | 1 | 240,717 | 240,717 |
| Washington | 3 | 583,196 | 1 | 801,000 | 1,384,196 |
| Wyoming | 4 | 1,812,012 | 4 | 586,000 | 2,398,012 |
| Total | 54 | 9,139,721 | 34 | 5,477,740 | 14,617,461 |

* Includes unit partly located in adjacent State. Totals adjusted.

| 1964 visits to Wilderness and Primitive Areas (thousands) | |
|---|-----|
| State: | |
| California | 288 |
| Minnesota | 246 |
| New Mexico | 68 |
| Oregon | 62 |
| Idaho | 61 |
| Colorado | 53 |
| Wyoming | 50 |
| Montana | 48 |
| Utah | 43 |
| Washington | 24 |
| Arizona | 18 |
| North Carolina | 6 |
| New Hampshire | 6 |
| Nevada | 1 |
| Total | 974 |

The fact that one-fourth of the visits took place in the Boundary Waters Canoe Area of Minnesota is significant. It illustrates both the popularity of boating and fishing in a wilderness environment and the fact that people will travel long distances to enjoy the wilderness.

The Boundary Waters Canoe Area is unique in the wilderness system. The northern one-third of the Superior National Forest—extending nearly 200 miles along eastern Minnesota's Canadian border—was set aside by the Secretary of Agriculture in 1926 to preserve its primitive character. The voyageur of today can follow mile after mile of canoe routes along lakes and streams whose borders provide a virtually unbroken primitive environment. Management of the huge Quetico Provincial Park in Canada along the northern border is comparable; together they make up an international outdoor vacation area without equal.

Under the Shipstead-Nolan Act of 1930, and Secretary's regulation U-3, the Boundary Waters Canoe Area has been managed to protect some of America's finest canoe country. A formal plan of management was developed in 1948 and approved by the Secretary of Agriculture. In 1964 a special citizens review committee was established by the Secretary to study the management program of this key recreational area. The Wilderness Act of 1964 included it in the total of 9.1 million acres established as wilderness.

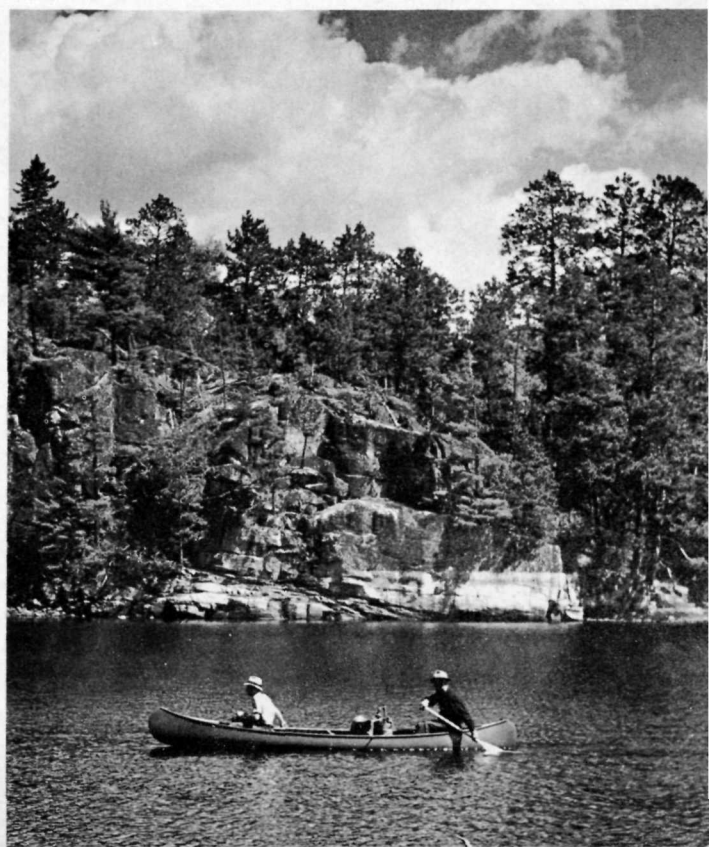
On January 12, 1965, Secretary Freeman announced an extension of the "no-cut" zone in the Boundary Waters Canoe Area. His decision was based largely upon the findings of the review committee. This action places within the zone about

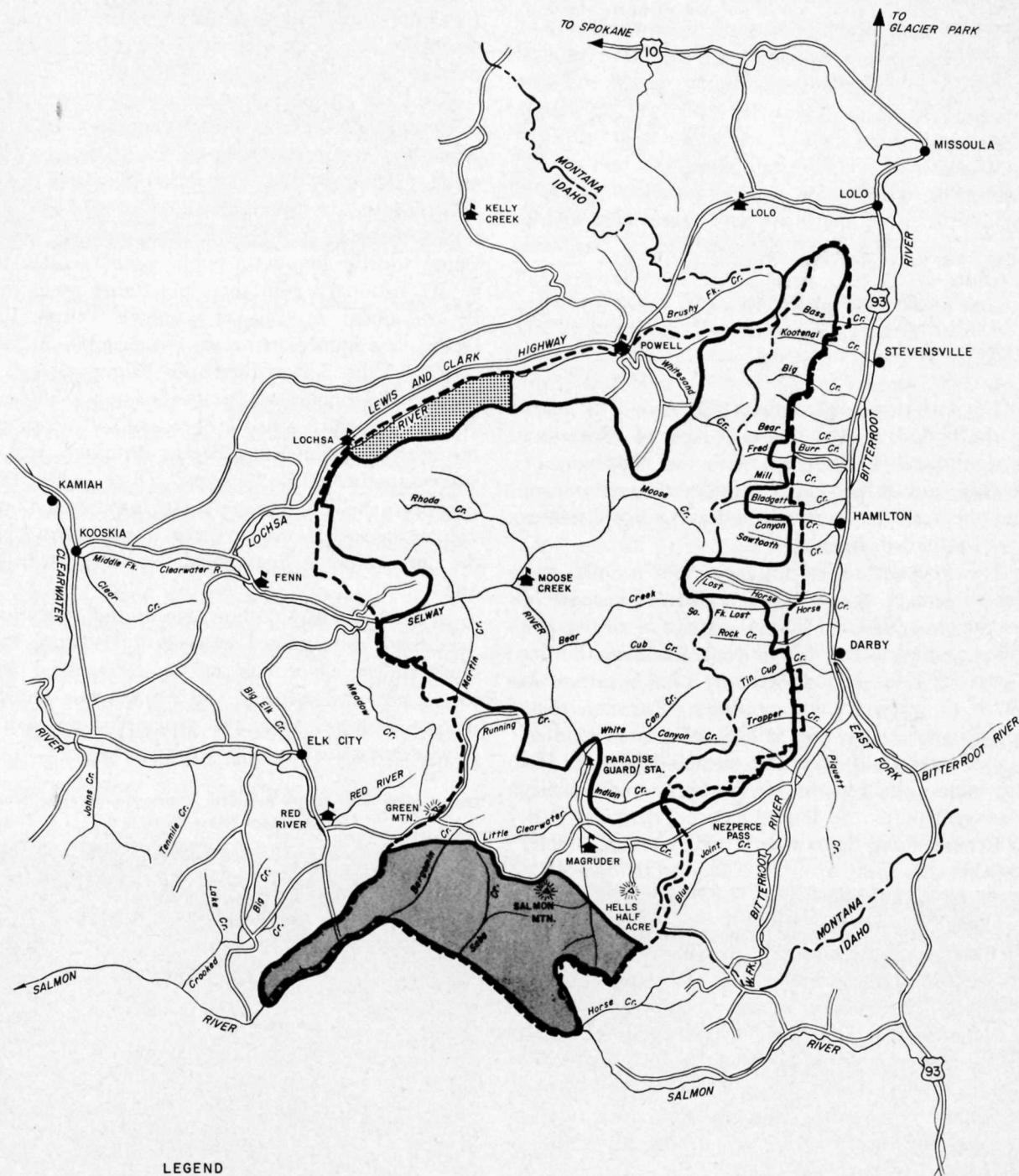
90 percent of the water surface of the entire area. In addition, the Secretary placed tighter controls on recreation use to protect the wilderness aspects of the area.

The Chief of the Forest Service has been directed to restudy and evaluate the remaining Primitive Areas and determine their wilderness character and value. The scope and depth of studies and evaluations required in these cases are great. Each decision must be based upon the predominant resource values and the long-term public benefit. Intangible values, national significance, and future needs must be considered as well as economic values, local factors, and immediate needs. For example, in January 1963 the Selway-Bitterroot Primitive Area in Idaho and Montana was reclassified as a Wilderness Area. This tract consists of 1,239,840 acres, and the nearby Salmon River Breaks Primitive Area includes another 216,870 acres. Three public hearings were held and some 4,000 groups and individuals presented written or oral statements about the area before a final decision was reached (fig. 18).

In 1964 almost 3 million man-days of recreational experience were gained in visits to the areas tabulated above. Over half of the recreational visits took place in California and Minnesota. The following estimates show the geographic distribution of wilderness use.

Canoe party deep in the Boundary Waters Canoe Area, Superior National Forest, Minn. F-498990





LEGEND

- SELWAY-BITTERROOT WILDERNESS AREA
- ORIGINAL PRIMITIVE AREA BOUNDARY
- SALMON RIVER BREAKS PRIMITIVE AREA
- LOCHSA RIVER FACE

Figure 18.—The Selway-Bitterroot Wilderness.

The quality of wilderness recreation often is determined by the degree of success achieved in maintaining the environment despite increasing numbers of visitors. Even the capacity of a wilderness area to accommodate visits without impairment is to some extent the result of management. Development of trail systems and convenient access to better natural campsites, control of pack stock grazing, and administrative actions to achieve better distribution of visitors in time and space are some applicable management techniques. The need to preserve wilderness characteristics for scientific or other nonrecreational purposes lends emphasis to the task of managing wilderness areas skillfully under increasing recreational pressures.

Some National Forest areas not classified as wilderness or primitive can provide virtually the same type of wilderness experience. Often the wildest

and most remote back country can be found in areas crossed by old logging roads and trails. Many visitors can achieve a satisfactory feeling of solitude and remoteness in places a brisk 30-minute hike from their cars. Indeed, this is as far away as many care to be. Yet they enjoy wilderness experiences as real and as significant as those of their neighbor riding with a pack train on a far-off mountain range.

Recent research in the development of "micro-wilderness" areas holds real promise of absorbing some of the demand for wilderness recreation experience. This concept of management envisages directing or guiding recreational use of small, conveniently located undeveloped areas to achieve full use of the resources and to afford visitors a satisfying outdoor experience. Figure 19 illustrates a typical "micro-wilderness" opportunity.

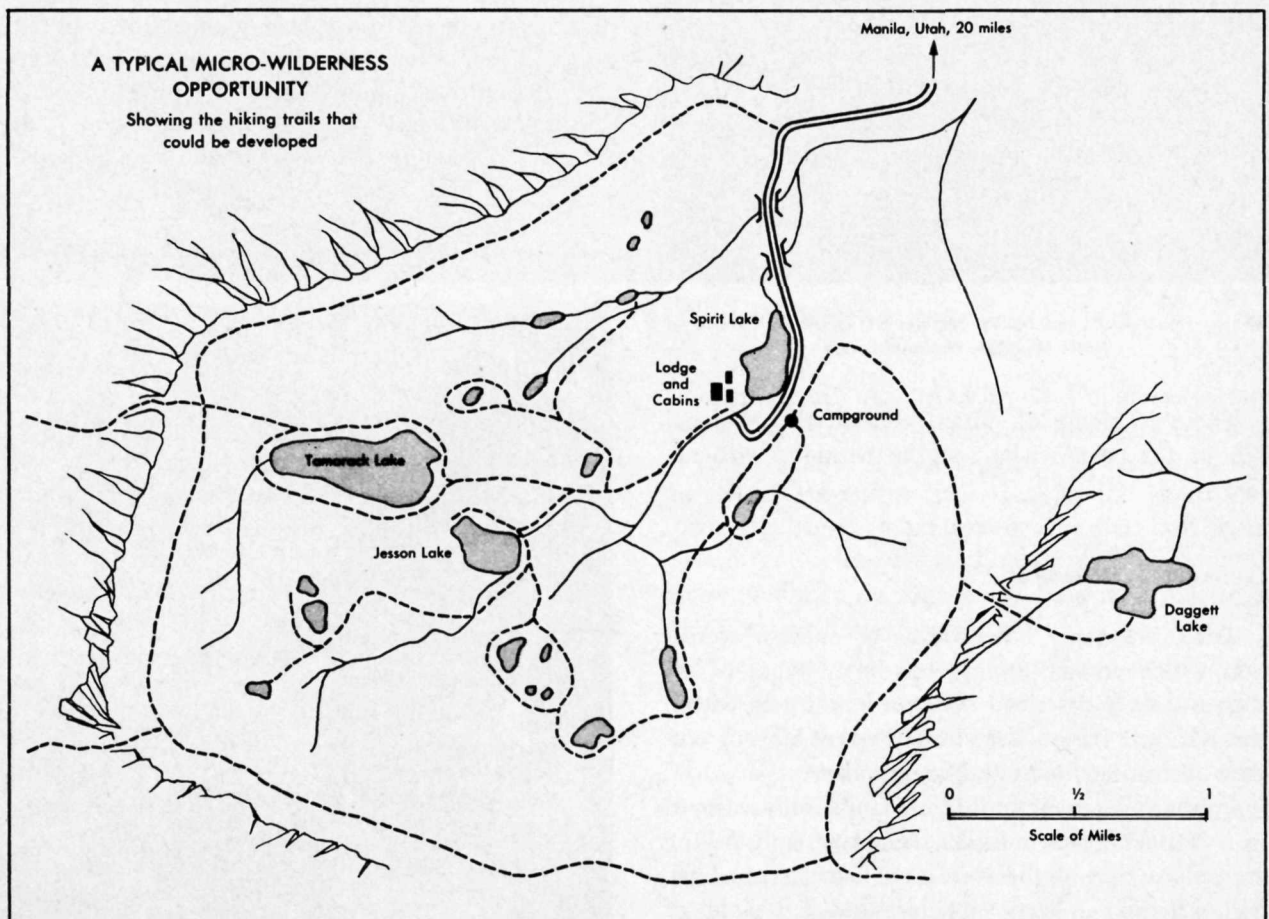
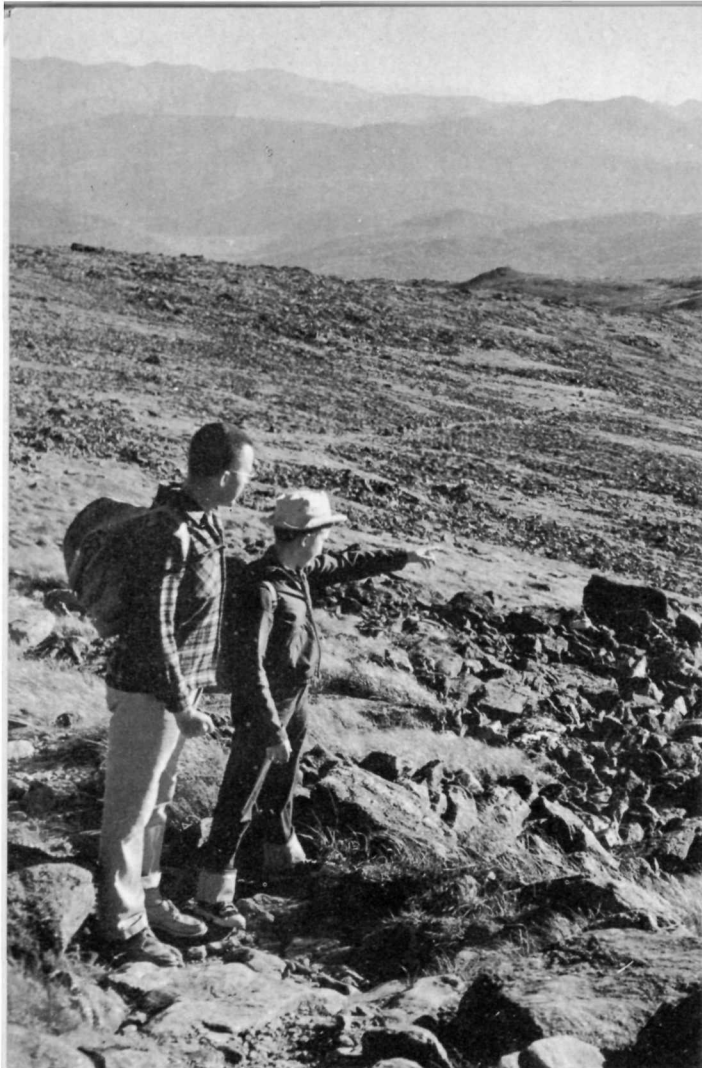


Figure 19.—An example of a "micro-wilderness" opportunity in Utah.



F-476941
Hikers, father and son, enjoy remoteness in New Hampshire;
White Mountain National Forest.

There is plenty of elbow-room in the National Forests for people who want to be alone with nature!

General Enjoyment

There are many other forms of outdoor recreation which do not fit into the broad types of activities already described. Opportunities exist within the National Forests for virtually every kind of outdoor recreational activity known today.

Forest and range wildlife are universally enjoyed by National Forest visitors. Hunting and fishing are only a part of the recreational values involved. Bird-watching is very popular, and the sight of elk, moose, or other big game is the high point

of many visits. The Sespe Wildlife Area Refuge for the North American Condor on the Los Padres National Forest in California and the Kirtland Warbler management area on the Huron National Forest in Michigan are two examples of administrative actions to protect rare species. Beavers, coyotes, otters, and energetic chipmunks continue to delight generation after generation of visitors. National Forests, as the home grounds of much of the Nation's most interesting wildlife, provide splendid chances for observation and general enjoyment of wild creatures.

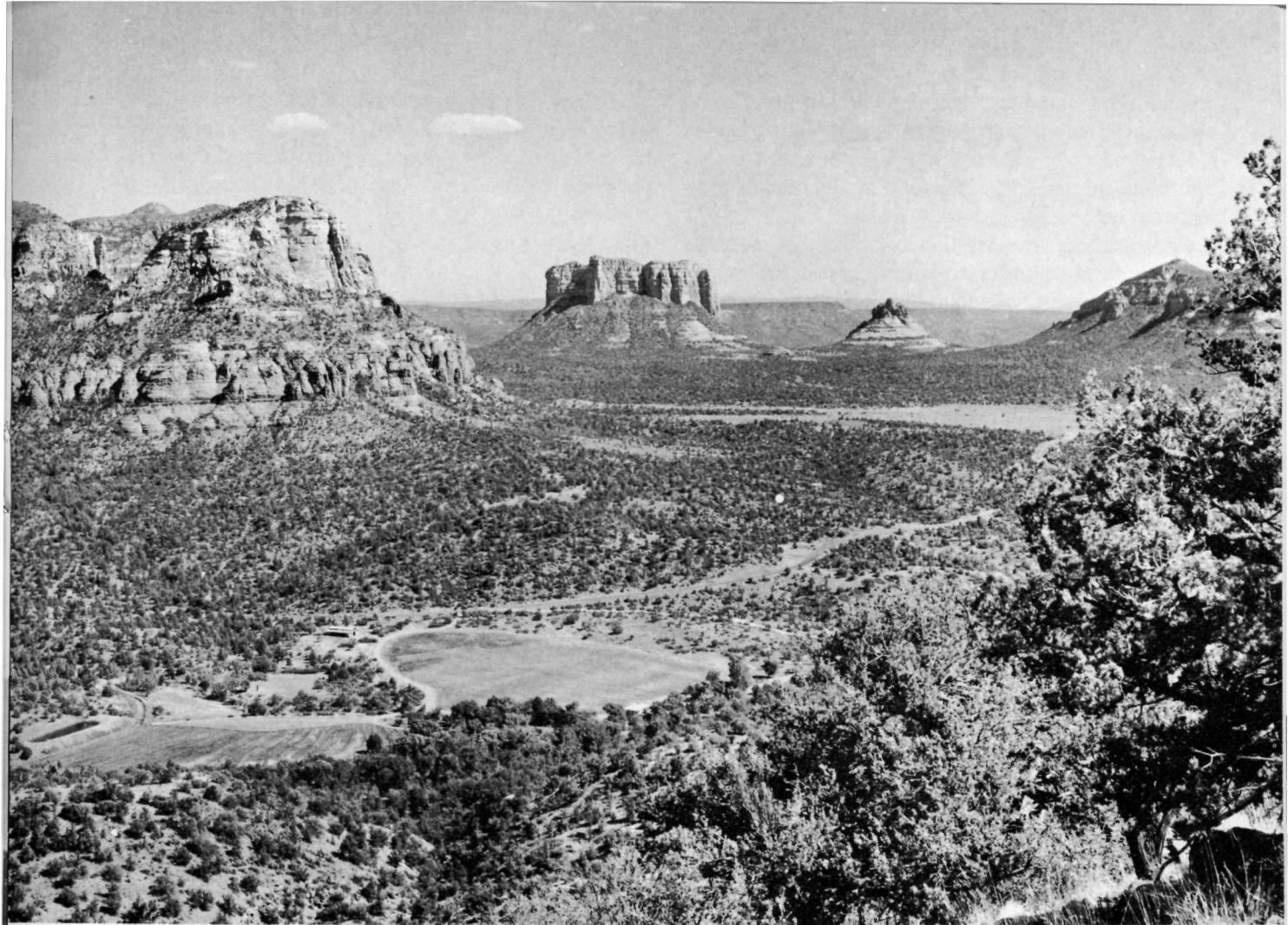
Scenic beauty is the reason for many visits to the National Forests. A large portion of the total enjoyment gained by visits to National Forests results from the changing vistas, both near and far, as seen in travel along the way. Much of the most spectacular scenery in the United States can be viewed in hiking and driving through the National Forests.

Rock collecting and prospecting are among dozens of other types of recreational uses of these public lands. These popular activities center on many locations within the National Forest System. Collecting mushrooms is more popular than hunting in some forests. Vegetation patterns provide abundant opportunities for ecological studies, archeological

Scenic overlook at Mount Magazine Lodge, Ozark National Forest, Ark.

F-458539





Spectacular Oak Creek Canyon in the Coconino National Forest, Ariz.

F-491519

areas are important in some forests, historical areas such as the Lewis and Clark Trail spur visitor interest, and other special features attract and hold the attention of visitors.

Full enjoyment and satisfaction from recreational visits is limited only by the visitors themselves. Just as "beauty is found in the eye of the beholder," so National Forest recreation opportunity is found in the mind and actions of the doer.

Resource Inventory

Responsible stewardship of the many resources which support the activities described above must be based on a solid foundation of knowledge. The variety and character of these activities, and the trends in use, demand competent resource inventory

and appraisal. An inventory and appraisal of the present situation is not enough; managers also need a forward look at the resources themselves as well as the prospects for their use. In the late 1950's planning began in preparation for the most intensive inventory and appraisal of recreational resources ever attempted on an area as large and diverse as the National Forest System.

The National Forest Recreation Survey was launched in 1959 to define the existing and prospective outdoor recreation situation in the National Forest System. Potential and existing sites and areas were identified, studied, described, evaluated, and classified to provide resource managers with specific information about the recreation resources on the areas they administer. Site development plans and schedules based upon the survey have been incor-

porated into local programs of work and have been useful in day-to-day management decisions. On a national scale, the survey provided program planning data needed to keep pace with increasing recreational use.

An inventory of recreation resources is far more complex than counting trees, fish, acres, miles of streams, big game, or other physical characteristics. Recreation resources—that is, present or potential recreation opportunities—are more typically combinations of all of the physical and nonphysical elements of the environment in a specific area or situation. Many of these elements defy measurement and resist even broad classifications; and the variety of combinations is infinite.

The Values of Projections

Estimates of future demand for outdoor recreation opportunity were necessary to guide certain phases of the inventory. For example, millions of acres of National Forest land could be transformed into adequate campgrounds and picnic areas if necessary. Some would be better than others and some would cost more than others, but reasonably attractive units could be developed in countless locations.

Localized estimates of future demand, converted into acres of resource needed, were utilized to set specific acreage goals for the inventory of potential "occupancy sites." The limits set by these goals provided priorities for identifying, studying, and classifying development sites needed in the foreseeable future. They also focused attention on the most promising sites.

Similarly, estimates of the volume of future recreation activities on the National Forests served to identify critical areas where a prospective imbalance of supply and demand could require special development priority or other actions. Benchmark dates of 1976 and 2000 were used in these projections to correspond with concurrent work on a national basis by the Outdoor Recreation Resources Review Commission.

All areas in the National Forest System were evaluated to determine the extent of opportunities for hunting, hiking, boating, fishing, riding, or other dispersed types of recreation. Estimates of increases in these dispersed-type activities also served to identify areas and situations where special resource management efforts might become necessary.

Less than half of 1 percent of the total land and water area was considered to be unavailable for recreation use because of administrative use, defense needs, mining claims, or other reasons.

Quality Appraisal

No two specific recreation opportunities on the National Forests are identical. Meaningful criteria had to be developed as the basis for determining the relative quality and development priority of thousands of individual situations. Many sites and areas had to be examined, rated, and inventoried for each of several types of recreation use: for example, water areas and waterfront zones usable for boating, fishing, and swimming; or wilderness areas usable for hunting, fishing, and wilderness travel. Areas with potential winter sports sites, archeological or special interest areas, or having other unusual characteristics required special criteria. Sets of criteria were developed for each of 27 different area and site classifications.

Factors other than physical resource characteristics also were significant. For example, climate, existing or prospective accessibility, nonrecreational uses of the area, the local supply of the resource being inventoried, and proximity to population centers had to be reflected in the appraisal. An outstanding development site deep in a roadless area of the Rockies or well situated on an Alaskan island obviously could not be ranked high in development priority and scheduled for heavy investments as a major campground or ski area.

The complexity and character of resource quality appraisal is indicated by the following partial list of characteristics for which criteria were developed in the survey:

| | |
|-----------------------------|---------------------------|
| Attraction | Pollution and turbidity |
| Climatic relief | Wind |
| Forest environment | Snowfall and texture |
| Terrain | Historic significance |
| Soil | Wilderness character |
| Shade or shelter | Fish and game populations |
| Low vegetation | Fish propagation |
| Scenic quality | Site or area capacity |
| Domestic water supply | Streamflow |
| Water temperature and depth | Development costs |
| Shoreline fluctuation | Access |
| Beach and bottom type | |

The classification system used in the survey distinguished between "suitable" and "unsuitable"

lands for each of the various recreation purposes. It also stratified the "suitable" lands into three basic quality classes—outstanding, good, and fair. Nationwide quality standards were augmented by regional and local criteria as needed to achieve valid and meaningful classification wherever applied.

Acres of Opportunity

One yardstick for a recreation resource inventory is the ability to accommodate visits. Area of land or water is one of the most useful units on this yardstick. The inventory of resources and recreation opportunity can generally be expressed in acres although characteristics such as scenic beauty, accessibility, and general attractiveness are not indicated by acreage data. In other words, the physical ability to accommodate visits can be inventoried in terms of acres, but the potential value of the resources in terms of visitor satisfaction cannot be expressed in these or any other units. Thus a recreation resource inventory can be better expressed and understood in terms of "acres of opportunity."

The concept of the "resource acre" as a unit of measurement of recreation opportunity was used in the National Forest Recreation Survey. Just as a tract of National Forest land may be used for a variety of purposes including recreation, many different recreational activities may be accommodated on the same area of land or water. For example, a particular wilderness area can accommodate travelers in the summer and hunters in the autumn, or both concurrently. Or a lake may be used for swimming, water sports, and fishing—usually simultaneously. A winter sports area can be a prime attraction for skiers in one season and sightseeing families a few months later. Thus, the total number of resource acres is well in excess of the actual land and water area of the National Forests.

Somewhat comparable situations exist in the use of "visits" as a measure of resource use. A family of four may register four visits at a campground, two visits to a fishing area, eight visits to a swimming area, etc., in the course of a weekend in a National Forest. All of these activities are resource uses; all use different resource acres (fig. 19).

Expressing the ability of resources to accommodate visits in terms of visits per acre was a key phase of the inventory job. In some cases it was easily done. For example, a campground with (1)

three family units per acre, (2) an average length of stay of $2\frac{1}{2}$ days, (3) an average length of season of 125 days, and (4) an average of four people per family, can accommodate 600 camping visits or 1,500 visitor-days per acre per year. The normal capacity is 12 people per acre at one time. The weekend load capacity is three families per acre without overcrowding.

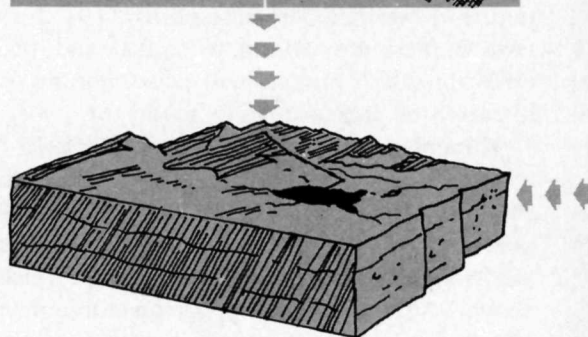
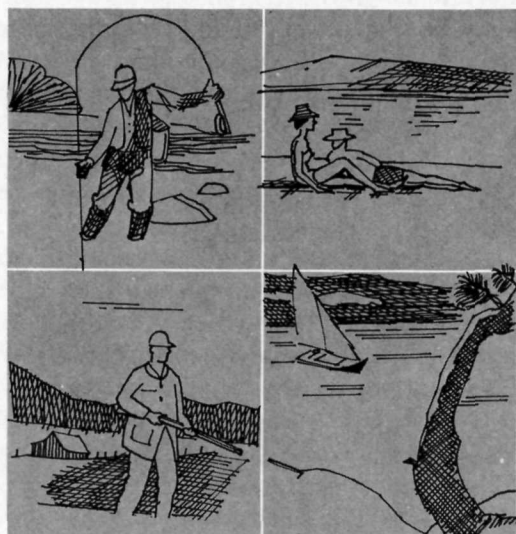
In other cases it was very difficult. For example, the capacity of a 300,000-acre unit to accommodate big-game hunting visits is influenced by (1) average length of stay, (2) length of hunting season, (3) distribution of hunting within the season—mostly opening day and weekends, (4) type of weapon—bow-hunting and/or gun hunting, (5) type of quarry—buck, doe, bear, etc., (6) character of the big-game population—numbers, distribution, condition, (7) weather, (8) accessibility, (9) the success ratio hunters are willing to accept, and (10) the extent to which hunters will penetrate into the area in search of game.

Throughout the country, local National Forest managers developed "visits per acre" factors to fit the conditions relating to each recreational activity in their area. The need for additional research and administrative studies to develop better information on carrying capacity was apparent throughout the inventory.

The detailed procedures of the National Forest Recreation Survey and the data collected would fill many volumes. Survey data were compiled by States, National Forests, and other units to summarize a wide variety of resource information. In addition, the survey produced specific information for use at the Ranger District level in implementing development programs and in making management decisions.

Resource Management

Skillful management of recreation resources and all other resources becomes more important with each passing year. The early unsupervised recreation use of undeveloped resources is no longer acceptable. Management of recreation resources and their uses must be an element within the coordinated management of all the resources of the National Forests. The degree of management required goes far beyond development of new facilities, better



1000 Acres - Surface Area of Land and Water

THE RESOURCE ACRE CONCEPT

1000 surface acres of land and water may equal more than 3000 recreation resource acres.

| Acres |
|--------------------------|
| Small Game Hunting - 700 |
| 700 - Big Game Hunting |
| Boating - 300 |
| 400 - Fishing |
| Skiing - 300 |
| 600 - Hiking and Riding |
| Mountain Climbing - 100 |
| 100 - Swimming |
| etc. |

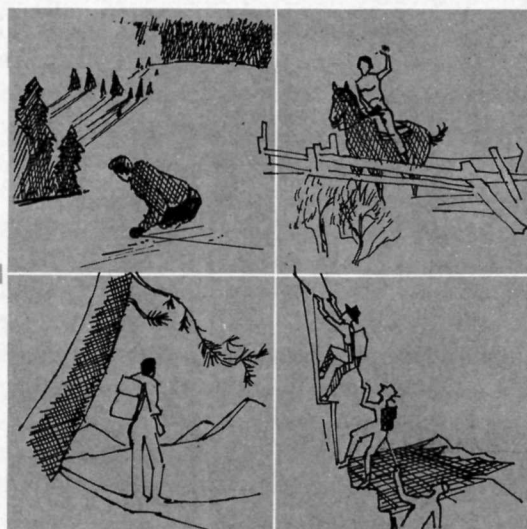


Figure 19.—Comparison of surface and "resource acres."

maintenance, improved access, and more control of recreational use. It calls for new management techniques, improved knowledge of the resources and of recreationists, and scientific methods of planning and coordinating the multiple uses of the National Forests.

The Supply Outlook

The supply outlook is generally good. A comparison of expected levels of demand with the inventory of existing and potential recreation opportunities suggests that the supply of resources, if properly developed and utilized, should be adequate to meet almost all foreseeable needs for many years to come.

It seems likely that until at least 1976 almost all visitors to the National Forests will be able to find the kind of recreation opportunities they seek. Most of the time they should have a wide choice among attractive alternatives.

However, as was pointed out earlier, this generally favorable outlook does not apply in the East unless strong programs of acquisition are effected without delay to consolidate public ownership within existing National Forest boundaries. Such a program is urgently needed because the most suitable and attractive privately owned lands within the National Forests are rapidly being committed to uses which preclude their acquisition for public recreation use.

Acquisition is particularly important in connection with development and administration of National Recreation Areas, securing locations for scenic recreation roads, establishing public access and development sites along rivers, streams, lakes, and reservoirs, and providing adequate game management and hunting opportunities in the National Forests. Acquisition in the East under the Weeks law has been concentrated on the upper slopes where timber and watershed values are most significant. The stream sides and lower slopes, where recreation values are often greatest, have been left in private ownership in many cases. The fragmented pattern of ownership has left half or more of the land within many eastern National Forest boundaries in non-Federal ownership. This constitutes an obstacle to access and effective public use of these lands for recreational and other purposes.

Looking beyond 1976, demand probably will overwhelm supply in some local situations despite managerial efforts to correct imbalances. Eventually some locations near population centers are certain to be subjected to recreational uses in excess of their carrying capacity unless limitations on use are imposed. However, all considered, the recreation resources of the National Forests can be developed and managed skillfully enough to meet most of the demands upon them during a period extending well into the next century.

The prospects for accommodating increased recreation activity at developed sites are especially good. There are abundant potential sites for camping, picnicking, and most other activities which require special recreation facilities. Even with reasonably high quality criteria, no overall problem of development opportunity appears in prospect. Road construction, water impoundments, and other factors will spread and extend the development potential. In specific areas, of course, choice spots for development may not be available indefinitely. And tomorrow's visitors will have to drive a few miles farther and be content with a campsite that is not right on the shore of a lake.

The special requirements of potential winter sports sites and the above-average rate of increase in skiing activity were recognized. In the Western States, most of the remaining high-country sites suitable for winter sports development are in the National Forests. Inventory data show that the anticipated needs can be met in almost all locations. In

this case also, increases in winter sports activity will depend upon facility development—especially access road construction—rather than the supply of potential development sites. Development of winter sports facilities is in turn dependent upon venture capital since public funds are not available for the type of construction required. The prospects are good because the growing demand for new facilities and development of new areas will create the needed incentive for private enterprise operating through National Forest special use permits.

In the Northeast, only a minor fraction of the potential winter sports sites are on National Forest land. In the Southwest and mid-Atlantic regions, undependable snowfall is a limiting factor although artificial snow machines have been successfully used in some cases. The high mobility of skiers as a group suggests that much of the prospective demand can be shifted to the better naturally endowed sites.

The geographic pattern of established or strategically located potential winter sports sites is indicated by the following tabulation:

| <i>Share of National Forest winter sports sites (percent)</i> | |
|---|-------|
| Forest Service Region: | |
| Intermountain | 36.5 |
| California | 30.0 |
| Pacific Northwest | 10.2 |
| Rocky Mountain | 9.9 |
| Southwestern | 3.8 |
| Eastern | 3.8 |
| Northern | 3.2 |
| North Central | 2.3 |
| Alaska | .3 |
| | 100.0 |

Many potential sites are not conveniently located in terms of existing or planned road connections to population centers, railroads, airports, or primary highway routes. In these places, road construction will be a major factor in planning and scheduling facility construction.

The prospects for boating and swimming site development also are more complex to appraise than for development sites as a whole. The outlook for boating opportunity is good. Site development to accommodate the types of boating recreation which require launching ramps, parking areas, or other facilities should keep pace with demand in almost every area. Most of the few local supply problems expected can be adjusted by improving public access through purchase or exchange of lands or shifting

part of the load to nearby facilities. More expensive facility development than is customary and more intensive management practices such as zoning water surfaces for specific recreational uses present other possibilities. New impoundments are expected to supply a substantial share of the National Forest development sites needed for boating in the years ahead.

The supply outlook for swimming sites is less favorable. Terrain conditions, water temperatures, seasonal limitations, and the heavy increases in swimming activity forecast by the Outdoor Recreation Resources Review Commission combine to indicate that it will be difficult to fully meet the demand expected in some National Forests. The situation may become especially acute in the Southwestern Region and in the Rocky Mountain areas. Prospects are good in California, the Pacific Northwest, the South, and in the North Central Region.

Potential development sites which would be attractive locations for summer home colonies are generally those most favorable for public use, for example, areas along rivers or lake shores. It is evident that opportunities for new recreation residences will be scarce in the years ahead.

The supply outlook for dispersed recreational activities is much less definite. The difficulties of resource appraisal in terms of quality and carrying capacity for hunting, fishing, hiking, wilderness travel, etc., have already been pointed out. Virtually the entire area of the National Forest System is available for outdoor recreation; this will not change. How effectively these acres can meet the prospective demands for recreational use, among other uses, will depend largely on management of the resources and the uses and on the activities and characteristics of the recreationists themselves. Here too, land acquisition in the East can do much to improve hunting, fishing, and similar opportunities.

Tentative forecasts of the acreage available in 1976 for some specific recreational activities are generally above current levels because land acquisition, improved access, new reservoir construction, wildlife habitat improvement, and similar development and management activities will extend these opportunities to new areas. The same factors will also achieve more effective use of the land and water areas now available.

The outlook for boating opportunity, mountain climbing, hiking, riding, visits to areas of unusual

interest, and general enjoyment is excellent.

The outlook for hunting, fishing, and wilderness travel is good for the next decade or so. Periodic reappraisals will be required in the years ahead to evaluate changes in the supply-demand relationships. Traditional patterns of these activities seem likely to be influenced by resource management practices and increasing levels of use.

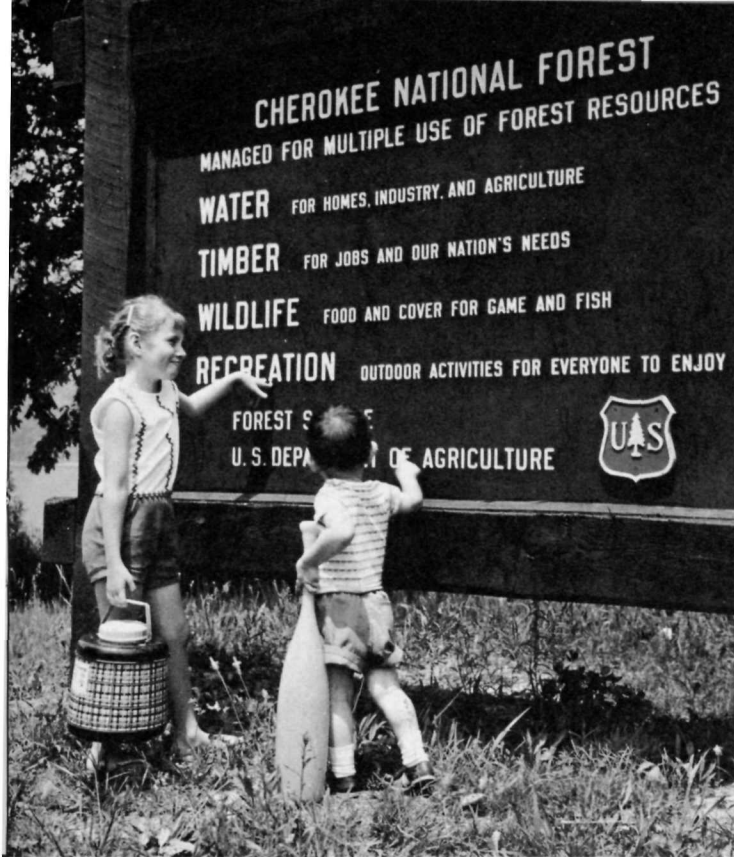
Management Significance

In early years, recreation opportunities and activities did not require much in the way of resource management. Today, intensive management is being translated into additional opportunities that would not otherwise exist. Tomorrow, resource management will be the predominant factor in creating and maintaining the quantity and quality of recreation opportunity that will be needed.

A detailed recreation management plan has been prepared for each of the National Forests. These plans are the framework for scheduling development and making on-the-ground management decisions. They are modified and supplemented as needed to keep pace with work accomplished and with changes in the local situation.

Experienced resource managers can anticipate the size and character of the prospective local recreational use with considerable skill. Knowledge of their resource base and of the prospects for changes on the supply side of the equation equips them to take effective actions in response to specific needs. Transportation system planning and information services, for example, can be used to distribute the recreational load and achieve better resource use. Key tracts of land often can be acquired through purchase or exchange to improve recreation opportunities in a specific area. Negotiations can be started to stimulate construction of resorts, ski facilities, commercial services, or other facilities on National Forest tracts made available through special use permits.

Site plans can be modified to accommodate anticipated volumes of use, as in providing water systems with enough capacity to supply additional camp or picnic area development when needed. If suitable development sites are scarce with respect to prospective demand, as in the Angeles National Forest near the southern California megalopolis, the capacity per acre in campgrounds, picnic areas, or other areas can



F-502174
Children can appreciate the many values of National Forests.

be increased through intensified development and management.

Scientific fish and game management and habitat improvement are actions of special importance. Probably no other recreation asset is as responsive to management, or as complex, as the fish and wildlife resources of the National Forests. The productive capacity of these lands, in terms of hunting and fishing opportunity or in terms of fish and game populations, is a direct outcome of the multiple use management of all resources.

Actions to achieve a well-balanced combination of private and public recreation opportunities can be especially effective. Some demands can be shifted to private lands with considerable benefit to all concerned, although National Forest lands are especially well suited for certain kinds of recreational activities. Private landowners can provide a wide variety of additional or complementary recreational opportunities of various types. Shooting preserves, golf courses, and vacation farms are a few examples. The skillful integration of a large public resource base and complementary facility development on nearby private land holds real promise for enhanc-

ing the total recreation opportunities associated with the National Forests. This will require a high order of managerial skill.

Coordinated Resource Use

Blending activities and resources to achieve the maximum public benefit is an objective of National Forest management.

Evolution of multiple use management, as applied to the National Forests, dates back to the "Use Book"—the first administrative regulations governing use of these lands—developed by Gifford Pinchot in 1905. Twelve years later, a field report by F. A. Waugh contained the following description of Forest Service management of the National Forests:

For each particular case these utilities (uses) are weighed against one another and a plan of administration devised to adjust and harmonize, to the utmost point practicable, the various forms of use so that the largest net total of public good may be secured. When one must be subordinated to another, preference is given to that of highest value to the public. On the principal areas of the National Forests, recreation is an incidental use; on some it is a paramount use; on a few it becomes the exclusive use.

Almost a half century later, these words still convey the core of Forest Service policy.

Supervisors currently prepare and maintain "multiple use" management plans for each National Forest. These overall plans provide the means to coordinate specific plans for recreation management, timber management, watershed management, transportation systems, fire protection, and other func-

A District Ranger and his staff plan multiple use coordination.

F-502172



tions. They provide a basis for coordinated resource use.

The evolution of multiple use management of the National Forests has not derived from a changing concept. Rather, the application of the same concept over the years has shown dynamic growth. The low level of requirements in the early days could be readily accommodated with the relatively haphazard

simultaneous uses of land which have occurred throughout history. Increasing pressures on the resources, as the volume of various uses doubled and redoubled, required translation of the multiple use concept into a procedure of planning and a system of management. The phenomenal rise in recreation use has been a leading factor in sharpening the need for skillful coordination of uses.

IV. POLICIES

. . . The pattern of National Forest administration is shaped by the democratic process and tested in the crucible of public opinion. Fundamental principles have endured through six decades as a framework for the specific policies needed to guide day-to-day management decisions . . .

All policies and programs relating to use of the National Forest System, for recreational purposes or otherwise, flow from the wishes of the American people. Legislative actions by the Congress and administrative direction from the Executive Branch give form and substance to the policies and programs of the Department of Agriculture operating through the Forest Service.

The Forest Service has been delegated the authority necessary to establish specific policies, regulations, and procedures within the broad policy framework formulated through legislation or otherwise. The Secretary of Agriculture has much broader responsibilities in formulating policies. Some other departments and agencies have responsibilities regarding use of National Forest lands for mining, electric power generation and transmission, highway construction, defense needs, and other purposes. States are responsible for management of fish and wildlife populations and law enforcement.

Fundamentals

A combination of broad policy concepts which endure as a foundation decade after decade, and the more specific policies used to apply these fundamentals in response to changing conditions, is a basic feature of National Forest resource administration.

Multiple Use and Sustained Yield

Multiple use and sustained yield as means to assure "the greatest good of the greatest number in the long run" form the keystone policy. On-the-

ground application of this policy involves complex management decisions of both immediate and long-term significance to recreationists and others. The Multiple Use-Sustained Yield Act of 1960, Public Law 86-517, is the statutory policy directive which underlies management of all National Forest resources. This act provided legislative recognition of a fundamental administrative policy in effect since 1905. The full text of the act follows.

*Public Law 86-517, 86th Congress,
H. R. 10572, June 12, 1960*

AN ACT

To authorize and direct that the national forests be managed under principles of multiple use and to produce a sustained yield of products and services, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it is the policy of the Congress that the national forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. The purposes of this Act are declared to be supplemental to, but not in derogation of, the purposes for which the national forests were established as set forth in the Act of June 4, 1897 (16 U.S.C. 475). Nothing herein shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish on the national forests. Nothing herein shall be construed so as to affect the use or administration of the mineral resources of national forest lands or to affect the use or administration of Federal lands not within national forests.

SEC. 2. The Secretary of Agriculture is authorized and directed to develop and administer the re-

newable surface resources of the national forests for multiple use and sustained yield of the several products and services obtained therefrom. In the administration of the national forests due consideration shall be given to the relative values of the various resources in particular areas. The establishment and maintenance of areas of wilderness are consistent with the purposes and provisions of this Act.

SEC. 3. In the effectuation of this Act the Secretary of Agriculture is authorized to cooperate with interested State and local governmental agencies and others in the development and management of the national forests.

SEC. 4. As used in this Act, the following terms shall have the following meanings:

(a) "Multiple use" means: The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

(b) "Sustained yield of the several products and services" means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the national forests without impairment of the productivity of the land.

Approved June 12, 1960.

Management of resources to achieve maximum public benefits is a policy objective with deep implications. National Forests are made available for full public use—with as few restrictions as possible. "Wise use" is the concept of conservation most closely allied with National Forest administration. Full use implies a full variety of uses as well as optimum volumes of use. Sustained yield implies that current actions and uses should not preclude or limit future uses and benefits. With the exception of areas to be preserved in primitive condition,



F-493392

Air tanker drops chemical slurry on fire; Deschutes National Forest, Oreg.

making all resources available for public use and enjoyment involves development of access, informational services, regulation of use, program planning and implementation, and a host of other activities including coordinating a wide variety of uses.

Resource Stewardship

Good stewardship of all National Forest resources is a fundamental precept. Development and management practices are aimed at protecting and enhancing the soil, water, vegetation, and other resources. For example, forest fire protection in the National Forests has obvious importance to recreationists. The increasing fire hazard associated with heavy volumes of recreation use is another aspect of this interrelationship.

Responsible stewardship of National Forest resources includes maintaining an appropriate forest environment for the enjoyment of recreation visitors. It includes protection of sites from trampling or other damage associated with overuse. Recreation activities that detract from the forest environment are not compatible with proper stewardship of the

resources. The fragile character of certain forest environments adds difficulty to the job of maintaining the quality of many recreation opportunities. Recreationists themselves have a vital role to play in the stewardship of these resources.

Safeguarding public health and safety, together with protection of natural resources, has first importance at all public-use areas developed by the Forest Service or operated under special use permits. Management policy calls for adequate sanitary facilities, safe water supplies, fire prevention, erosion control, pollution prevention, and hazard elimination. Recreation improvements developed by private individuals under special use permits are required to harmonize with the environment as much as possible.

Values related to public hunting, fishing, hiking, boating, scenic enjoyment, and similar activities are

recognized in virtually all resource management decisions and actions. Frequently, recreational values are enhanced through appropriate modification of these decisions and actions.

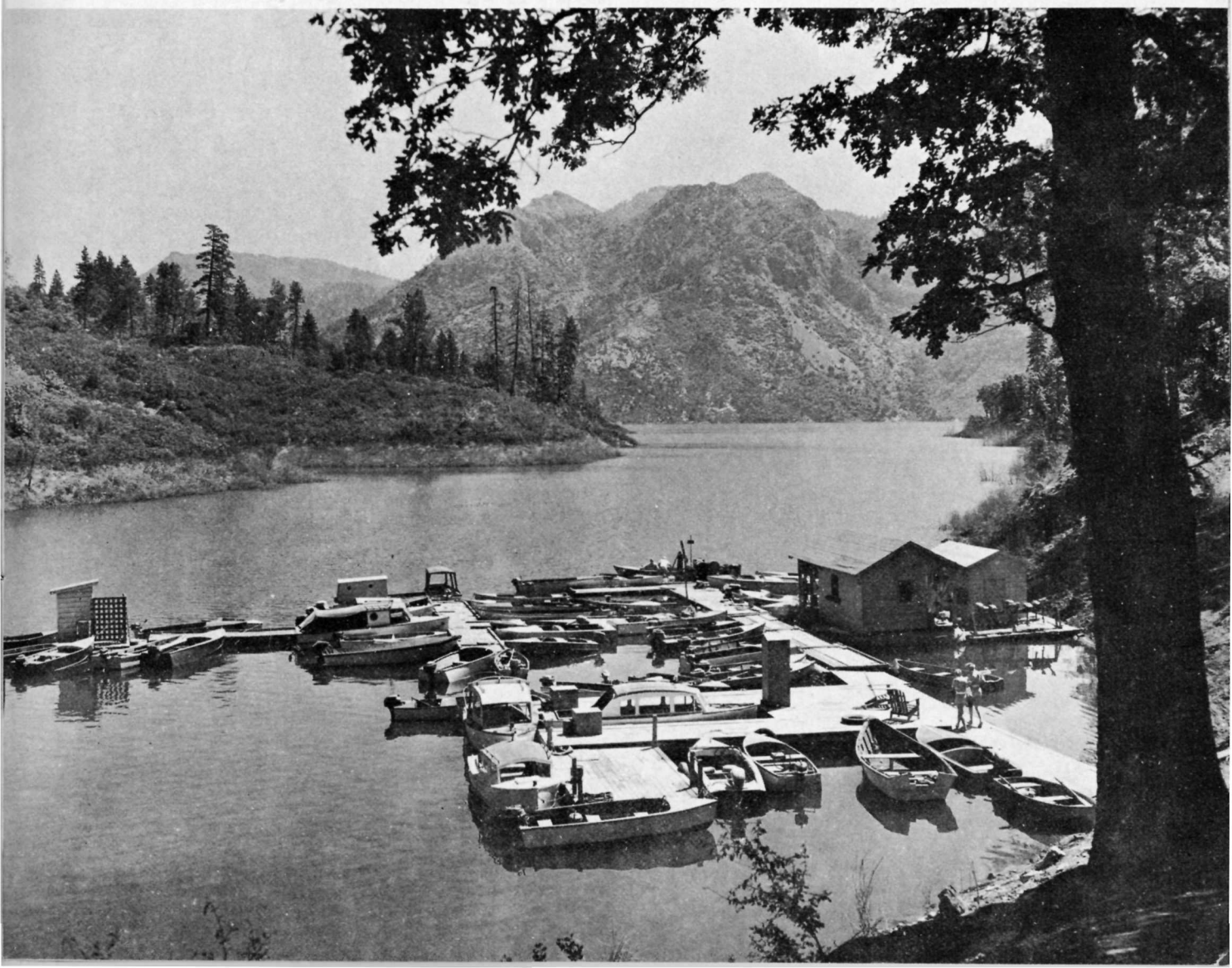
Cooperation

Forest Service cooperation with other Federal agencies, States, local governments and private individuals or industries reflects a basic policy. This cooperation results in a substantial increase in public recreational opportunities in and near the National Forests.

Development of recreation facilities on National Forest land with private capital is one example. Cooperative actions with respect to fish and wildlife resources, recreation management of reservoir areas,

Boat livery concession; Shasta-Trinity National Forests, Calif.

F-474412



and concessioner management of recreation facilities are other examples of how this basic policy is implemented.

National Forest managers actively seek to achieve the combination of private, State, and Federal efforts and resources that will be most effective in meeting public recreational needs in specific areas. The policy is to provide complementary recreation opportunities—not to compete with private enterprise or with States and local governments. Many projects illustrate how local initiative can make full use of National Forest resources and attractions in cooperative programs to strengthen rural economies.

Forest Service policy with regard to cooperative actions recognizes the responsibilities associated with management of public properties. Legislative actions have made it clear that managerial responsibilities must be redeemed by the managing agency. Direct responsibility for multiple use management of all

resources and the need to avoid fragmentation of administrative units are among the reasons which preclude transfer of such responsibilities to State, local, or other Federal agencies.

The pattern of cooperative action is already well established, but this policy can be expected to gain new significance in the years ahead. The advent of the Bureau of Outdoor Recreation and the President's Recreation Advisory Council in 1962 has already added a new dimension to intergovernmental coordination in the field of outdoor recreation.

Responsiveness

Specific policies evolve in response to new knowledge and to the changing patterns and needs in public use of the National Forests. A constant effort to anticipate prospective needs is a primary feature of National Forest management. Conscious effort to generate forward-looking actions is required by the characteristic slow growth of forests—and a public trust which spans scores of years and generations of both trees and people.

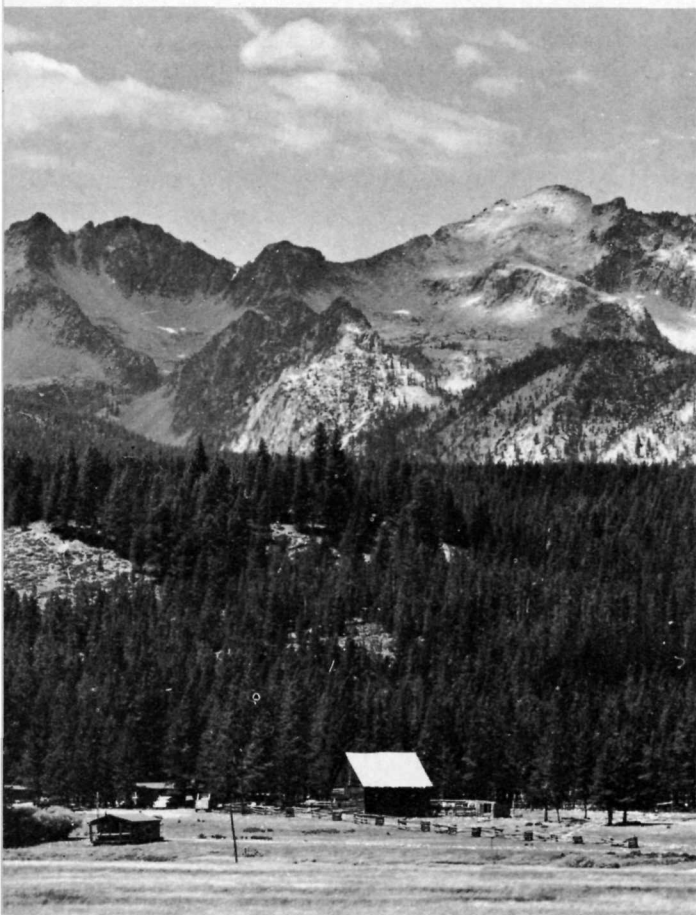
Each of the specific policies and programs covered in the following pages illustrates the responsiveness of National Forest management of recreation resources.

Recreation Policies

Certain specific policies with regard to recreation resource management are in effect at present. Each has current significance for millions of American people. Keen public interest in how the recreation resources of the National Forests are being managed, and how they will be managed, is evident. The policies described in this section underlie many administrative actions.

Facility Development

Development of recreation facilities is guided by several specific policies. Public recreation areas and facilities suitable for forest-type recreation will be developed and maintained in sufficient number to accommodate the average weekend volume of public use during the recreation season in a safe and sanitary manner without overcrowding. Public recreation facilities are to be appropriate to the forest



F-499869
Ranch used as a base and starting point for wilderness travel,
Sawtooth National Forest, Idaho.

environment. They are to be durable, low-maintenance-cost developments combining the best principles of engineering, architecture, and landscape management.

Public service facilities such as filling stations, resorts, motels, ski-lifts, and boat docks will not ordinarily be constructed or operated by the Forest Service. Competent concessioners are encouraged to develop such facilities under special use permits in suitable locations where there is a public need for the facilities. These operations are reviewed and inspected by the Forest Service; concessioners pay the United States an equitable fee.

Public needs come first in the use of National Forest lands, i.e., development of a beach that is needed to accommodate thousands of swimmers will not be prevented or postponed unduly in favor of an organization campsite, a new summer home area, or similar "less public" uses. Development takes place on the basis of comprehensive resource plans which encompass the general area and in accordance with detailed site development plans made to fit specific conditions (fig. 20).

Facilities will be designed and constructed to meet specific needs. For example, if local demand requires an increased density of use, site planning may incorporate five or six campsites per acre instead of three or four, provided that special measures can be taken to retain the forest environment. Sites which must be heavily used will be "hardened" to the extent feasible to protect the resources, the environment, and the visitors themselves. Road and trail construction will be coordinated with facility development and use to achieve optimum access to resources and dispersion of National Forest visitors.

More emphasis will be given to development of well-planned combinations of a variety of forest recreational facilities and areas which provide an attractive and readily available array of recreational opportunities. These recreation centers will vary in size; some may become National Recreation Areas established in accordance with criteria set by the President's Recreation Advisory Council. Others will be informal groupings of facilities in a loosely knit combination of recreation opportunities over large areas of National Forests. Regardless of the



F-507454
Private capital built this multi-million-dollar facility in the Inyo National Forest, Calif.



F-475730
Picnic site, Sumter National Forest in South Carolina.

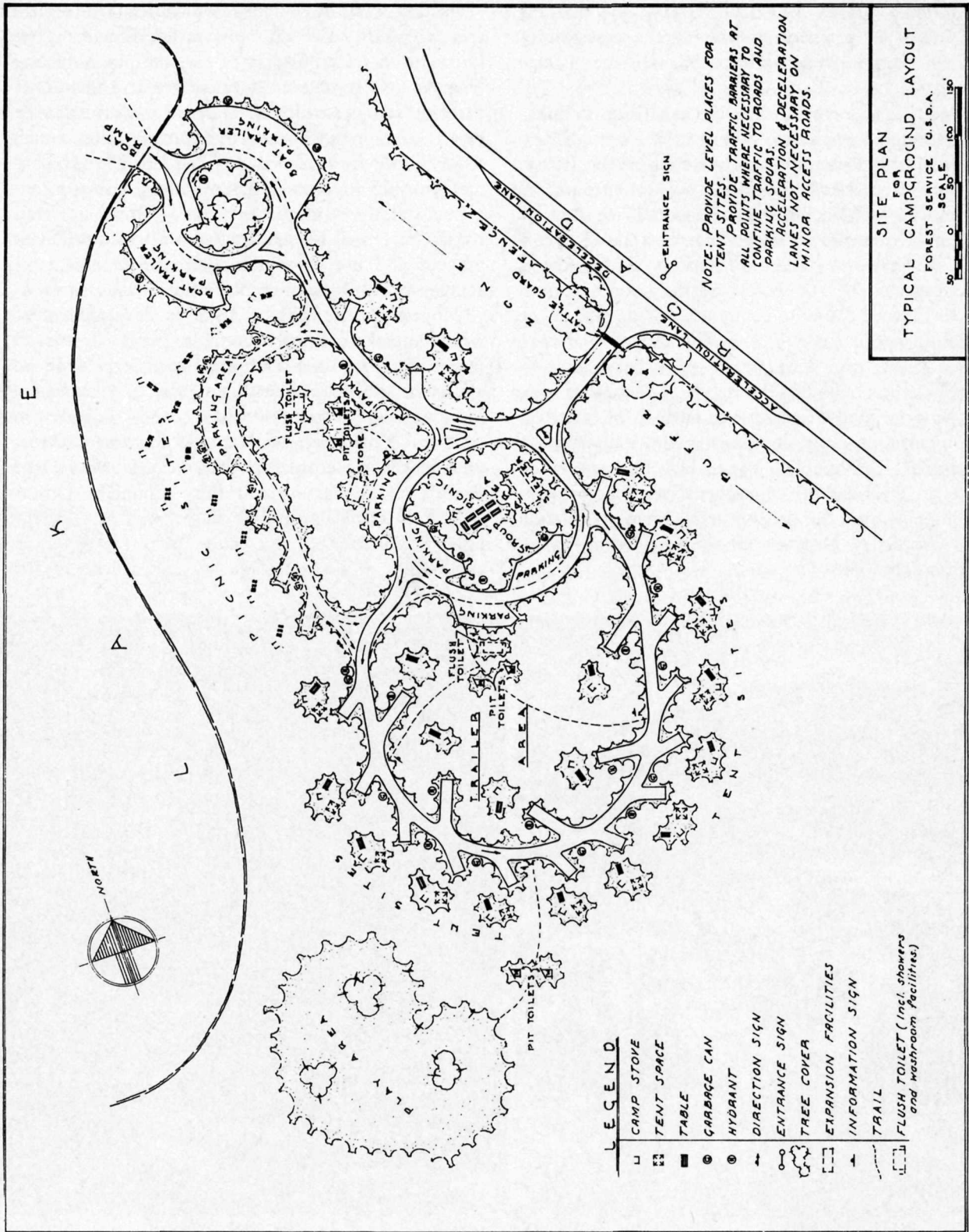


Figure 20.—A typical site development plan.



Organization camp swimming site, Manistee National Forest, Mich.

F-478047

size or overall significance, the Forest Service will work with State, local, and other groups to combine the best available features of private, State, and Federal resources into a well-planned complex for public use and enjoyment.

User Fees

The Forest Service has for many years required payment of fees for the use of certain facilities or resources provided at Federal expense. Fees for special use permits for recreation residence sites is one example.

More recently, nominal user charges at some heavily used campgrounds, picnic sites, and boat launching ramps have been made. Services such as electricity, hot showers, and stove-length firewood have not generally been provided free of charge.

A national policy and an equitable system of user charges for recreational use of Federal lands and facilities was recommended by the Outdoor Recreation Resources Review Commission in its report published in 1962.

The Land and Water Conservation Fund Act signed into law on September 3, 1964, established a system of admission and user fees for persons who utilize outdoor recreation areas provided by the Federal Government. A charge system for recreation use was instituted in the National Forest System in 1965 following the basic approach prescribed by this new legislation. Recreation at developed areas is covered by an entrance or admission fee. Visitors may elect to purchase an annual automobile sticker or pay, as an alternative, a nominal daily or weekly fee to meet this obligation. The character of certain facilities or services warrants a supplemental user fee which is collected. Automatic ticket vending machines and other devices are used wherever feasible. Collection of fees and compliance checking is designed to be as simple as possible with a minimum of inconvenience to visitors.

Neither admission nor user charges will be required for hunting, fishing, hiking, and a wide variety of National Forest recreational opportunities which do not involve the use of facilities or services.



F-465147

Boy Scout camp; Pisgah National Forest in North Carolina.



F-478962

This future recreational development area requires careful management. Cumberland National Forest in Kentucky.

Organization Camps

Most organized camping in the National Forests takes place at developed sites in camps established under special use permits. Forest Service policy is to welcome organized youth groups or other non-profit public or semipublic groups in utilizing the National Forests for recreational purposes.

Special use permits for construction of camp facilities will ordinarily be granted—where there is a demonstrated need—particularly in western Regions. However, such permits are not issued where suitable private land can be obtained for this use, or in situations where potential sites might be needed for public use in the foreseeable future. Organized groups are frequently assisted in locating an appropriate campsite on private land nearby.

The Forest Service will not construct facilities or provide services for exclusive use by specific organized groups. However, many groups benefit from amphitheaters, informational services, swimming facilities, shelters, and other facilities which are available to the general public and which may be reserved for group use on a day-by-day basis.

Organized groups are often assisted by rangers in planning and undertaking camping or similar activities in undeveloped areas. For example, Girl Scout

encampments and Boy Scout jamborees in the National Forests highlight summer vacations for many young people.

Summer Homes

Forest Service policy must guide management actions along the narrow path between full-scale public uses of the National Forests on the one hand and limited use by individuals or small groups on the other. Balancing immediate needs of the few today against prospective needs of the many tomorrow narrows the path considerably.

Traditionally, Forest Service policy has been that private recreation uses of National Forest lands, such as summer homes, may be permitted only where the lands are clearly not suitable for or are not needed for public uses and where private land is not available.

In some situations suitable sites are abundant on National Forest land but not on private land, and all foreseeable public needs are adequately provided for. In these cases it is possible to provide additional recreation opportunity by issuing special use permits for recreation residence sites. This was the case for decades in many western National Forests, and it is still so in certain areas.

On the other hand, permitting private recreational residences on National Forest land to preclude public use of public lands and waters must be avoided or corrected. The sharp upward trend in the volume of public recreation, unforeseen developments in local areas such as water impoundments and new highways, difficulty in obtaining termination of special use permits despite cancellation clauses, and other factors have combined to create situations where occupied sites are needed for public use. In these cases action must be taken to release the sites.

Interim Management of Development Sites

The National Forest Recreation Survey served to identify many of the potential sites that will be developed in the next three or four decades for concentrated recreation use. These sites, and comparable sites which may be acquired or created through reservoir and road construction or otherwise, are tentatively allocated for development to accommodate future recreational use. Certain of these are selected in scheduling development each year, but most of the sites must be managed for a number of years before they are developed and used for recreational purposes.

The Forest Service will manage these sites so as to utilize the resources thereon and yet protect or enhance those characteristics which warrant selection of the area as a potential recreation development site. Interim land and water management practices will be designed to provide a safe, attractive environment when the site is needed for recreational development and use.

Potential recreation sites will not be left idle in anticipation of future use. They will be used for timber and forage, wildlife and water, and other uses compatible with the objectives of interim management of these sites. Harvesting diseased, dying, hazardous, and over-mature timber will be done as needed to provide safe occupancy sites. Careful control of regeneration in these areas to provide thrifty young stands to shade and screen facilities, and wildlife habitat improvements nearby, are other examples of actions to enhance the recreational values at potential development sites.

Recreation Zones

Delineation and classification of extensive areas of the National Forest System to aid in management

and use of resources is often practiced. Wilderness, primitive, wildlife, and other classifications have been in existence for decades. Zoning is a standard procedure in developing multiple use management plans.

Recently, the Bureau of Outdoor Recreation has recommended general use of these six classes:

- I—High-Density Recreation Areas
- II—General Outdoor Recreation Areas
- III—Natural Environment Areas
- IV—Unique Natural Areas
- V—Primitive Areas
- VI—Historic and Cultural Sites

The Forest Service has adopted this terminology although some interpretation and refinements have been necessary to adequately reflect National Forest characteristics. Other descriptive classifications are used as needed to guide management and use of resources in specific situations.

Since the earliest days, resource managers have worked to protect the attractiveness of roadside zones. Advertising has been curbed, powerlines and gravel pits have been placed out of sight wherever possible, and other actions have been taken to safeguard scenic values. Forest Service policy requires that roadside zones, trailside zones, and waterfront zones must have adequate width and must be managed to enhance the forest environment for public use and enjoyment.



F-468764
The Gifford Pinchot National Forest in Washington offers inspiring landscapes.

In March 1962 the Secretary of Agriculture approved a formal statement of policy governing Forest Service management of high mountain areas in the National Forests of Washington and Oregon. The basic feature of this policy is recognition of broad management zones which can be identified on the ground. In these zones, as in other classifications used in National Forest resource management, primary values are identified as a first step in management planning. A primary value does not imply an exclusive use.

In essence, multiple-use management of the National Forests employs recognition of zones or areas where certain uses or values are emphasized in management. Development sites, waterfront zones, municipal watersheds, and other classifications already mentioned indicate the importance of land classification in general and recreation zones in particular. Management of outstanding recreational areas is based upon special studies and plans.

Wilderness Management

Establishment and administration of the National Forest wilderness system has been at the center of many difficult policy issues in past years—and some have yet to be resolved. Few other comparable subjects have held such sustained public interest. Records of hearings on the various “wilderness bills” proposed and discussed in Congress during the past 8 years fill many volumes. The hearings, recommendations, and discussions of this subject constitute a modern classic of public policy making in the field of conservation.

Passage in 1964 of an “Act To Establish a National Wilderness Preservation System” was the culmination of this long effort. This legislation strengthens longstanding policies of wilderness establishment and management in the National Forests.

The fragility of wilderness, its unique qualities, the economic values inherent in millions of acres of public land, and the characteristic high intangible values, combine to create specific issues difficult to resolve. Basically, policy questions concern: (1) Establishment of new areas—including reclassification of existing primitive areas, relocation of boundaries, or other actions which influence the size and

location of areas designated or managed as wilderness; (2) administration of existing areas—including nonrecreational uses permitted, insect and disease control, public access, and other matters relating to preservation of the wilderness environment.

Existing primitive areas are being studied and appropriate portions will be recommended for permanent wilderness status under procedures prescribed by the Wilderness Act. Land-use studies will be made of other areas suitable for wilderness purposes and those primarily valuable and needed for such use will be considered for inclusion in the Wilderness Preservation System.

Forest Service administration is directed toward maintaining the quality and character of the wilderness environment on all wilderness and primitive units. They are made available for such public recreation uses as are compatible with preservation of the wilderness environment.

Specific policies regarding administration and use of wilderness areas are prescribed in the Wilderness Act of 1964 to supplement previous laws. Nothing in the act interfered with the purposes for which National Forests are established as set forth in earlier legislation. Except for existing private rights and special provisions, the act prohibits within any wilderness area: Commercial enterprises, roads, motor vehicles, motorized equipment, motor boats, other forms of mechanized transport, landing of aircraft, structures, or installations.

Some specific exceptions to the above include requirements for the administration of the areas including emergencies involving the health and safety of persons within the areas. On the National Forests, the Secretary of Agriculture may permit exceptions in control of fire, insects, and disease; and continuation of established use of aircraft or motor boats. He shall permit continuation of established grazing of livestock; and exceptions in management of the Boundary Waters Canoe Area. Prospecting and gathering of information about mineral or other resources; mineral leasing; use of land for transmission lines, reservoirs, etc.; commercial services; access rights; acquisition of land; and other matters relating to the use and administration of National Forest wilderness areas are also covered in the act.

It is essential that wilderness values be protected—even if recreational use must be limited to do so.



F-497277

Girl Scout campers hiking into Three Sisters Wilderness Area, Deschutes National Forest, Oreg.

The Forest Service is striving to apply practical techniques of wilderness management as the volume of recreational visits to wilderness areas rises. Research and administrative actions are being directed toward accommodating recreational use of these areas without deterioration of wilderness values.

Recreational Travel

Almost all recreation activities in the National Forests involve walking or some other form of travel in addition to automobile riding on hard-surfaced roads. Changing modes of off-road travel are in the forefront of changing patterns of use. Some of these require policy decisions.

The use of jeeps, scooters, and other vehicles capable of cross-country travel cannot always be encompassed by a policy of "free and unrestricted use." Safety hazards involved in intermingling horses and vehicles, erosion problems on unstable soils and trails, increased fire hazards, and disturbance of wildlife are other significant considerations in some areas. Solitude, the quality of highest value to most visitors in remote areas, can be temporarily shattered by gasoline engines. On the

other hand, many visitors find recreation in traversing rugged terrain on wheels, in water skiing, in winter travel by snowmobiles, and in other activities which require mechanical power.

Forest Service policy is to control the use of motorized equipment for off-road travel to the extent necessary to protect visitors, resources, or a wilderness or other special environment. Within this policy, positive actions are taken to provide opportunity on the National Forests for all forms of outdoor recreation dependent upon motorized equipment. Many special facilities such as boat launching sites, roads, and trails are made available for recreationists using motorized equipment.

Scenic Roads and Recreation Ways

The National Forests contain some of the Nation's most outstanding opportunities for recreational driving. Thousands of miles of multipurpose roads are open to the National Forest visitor and dozens of choice opportunities for development of high-quality recreation ways have been identified. Forest Service policy is to develop parkway-type and other recreational driving opportunities as rapidly as possible within the context of the Multiple Use-Sustained Yield Act of 1960. Overlooks, rest stops, and other facilities are established at appropriate locations as needed. Multipurpose roads are located to aid enjoyment of scenic beauty wherever it is feasible and justified by the recreational traffic.

Interstate recreational travel tends to concentrate visitors along main highways passing through or near many National Forests. Vacationing families often spend weeks in touring through many States and visiting different National Forests or other attractions each day. Forest Service policy is to provide picnic sites, campgrounds, rest stops, visitor information centers, and other facilities at appropriate locations for the convenience of these transient visitors.

Land Acquisition

The 221.7 million acre area within National Forest boundaries includes about 38 million acres of State, private, and other non-Federal lands. Some of this land is within community areas, used for commercial purposes, included in highways and other facilities, or encompassed in sound agricultural enterprises. Some is in corporate ownership and held

for lumbering, electric power generation, mining, or other industrial uses characteristic of forested areas. Much of the land is held in relatively small ownerships for numerous purposes, including among others simply pride of ownership or the desire of people to retain ancestral property or have a tie to the land. Some of these lands are needed for National Forest purposes.

The National Forest purchase program in the eastern United States from 1911 through the 1930's was strongly oriented toward acquisition of lands important for watershed protection, streamflow regulation, and timber production. Because of this many tracts within National Forest boundaries that are needed for public recreation remain in other ownership. This is particularly true of lands bordering on lakes and streams and tracts which block access to public holdings (fig. 21).

In the western National Forests, the pattern of early homesteading and mining tended to preempt lands bordering rivers, creeks, or lakes and tracts at lower elevations. Such lands are usually the most suitable for recreational development. Widespread alternate-section land grants to railroads, States, and institutions also resulted in private ownership of lands within National Forest boundaries which now have high recreation value.

Forest Service policy regarding the addition of land for recreation purposes is to acquire, through purchase, donation, or exchange:

1. Tracts having important public recreational values and needed (a) to accommodate public demands for recreational use of the National Forests, (b) to protect existing or planned National Forest recreation developments, or (c) to meet specific situations where prospective demands are expected to overwhelm the resources now in National Forest ownership.

2. Privately owned tracts within the National Forest wilderness system.

3. Tracts needed to assure reasonably convenient public access to and use of National Forest recreation opportunities, including public waters, and tracts which include specific scenic, scientific, or historical features of public significance.

Sound public policy requires that needed land acquisition be accomplished promptly through exchange or purchase while key tracts are still available and uncommitted to other uses.

Fish and Wildlife

The importance of fish and wildlife in National Forest recreation can hardly be overstated. Three characteristics in particular influence policies concerning management of fish and wildlife populations and their habitats. First, State Fish and Game Departments or comparable agencies are responsible for managing fish and wildlife populations; National Forest managers are responsible for managing habitat on National Forest lands within each of the States concerned. Second, the values of wildlife as a recreation resource are based in large part upon sustained harvests of fish and game from the forests. Third, fish and wildlife populations are strikingly responsive to changes in habitat—purposeful or otherwise—and to changes in biologic factors including hunting and fishing.

Basically, Forest Service policy is to manage habitat so that wildlife populations, including non-game species, will be maintained at a level consistent with their recreational and other values and consistent with all other values and uses of National Forest resources. Forest Service personnel cooperate with State, County, and Federal officers in the enforcement of laws and regulations for the protection of wildlife. They determine the extent to which National Forest resources may be directed specifically to wildlife production in combination with other uses and services. They also work with State

Acquisition of land for National Forest purposes is a continuing need.

F-498771



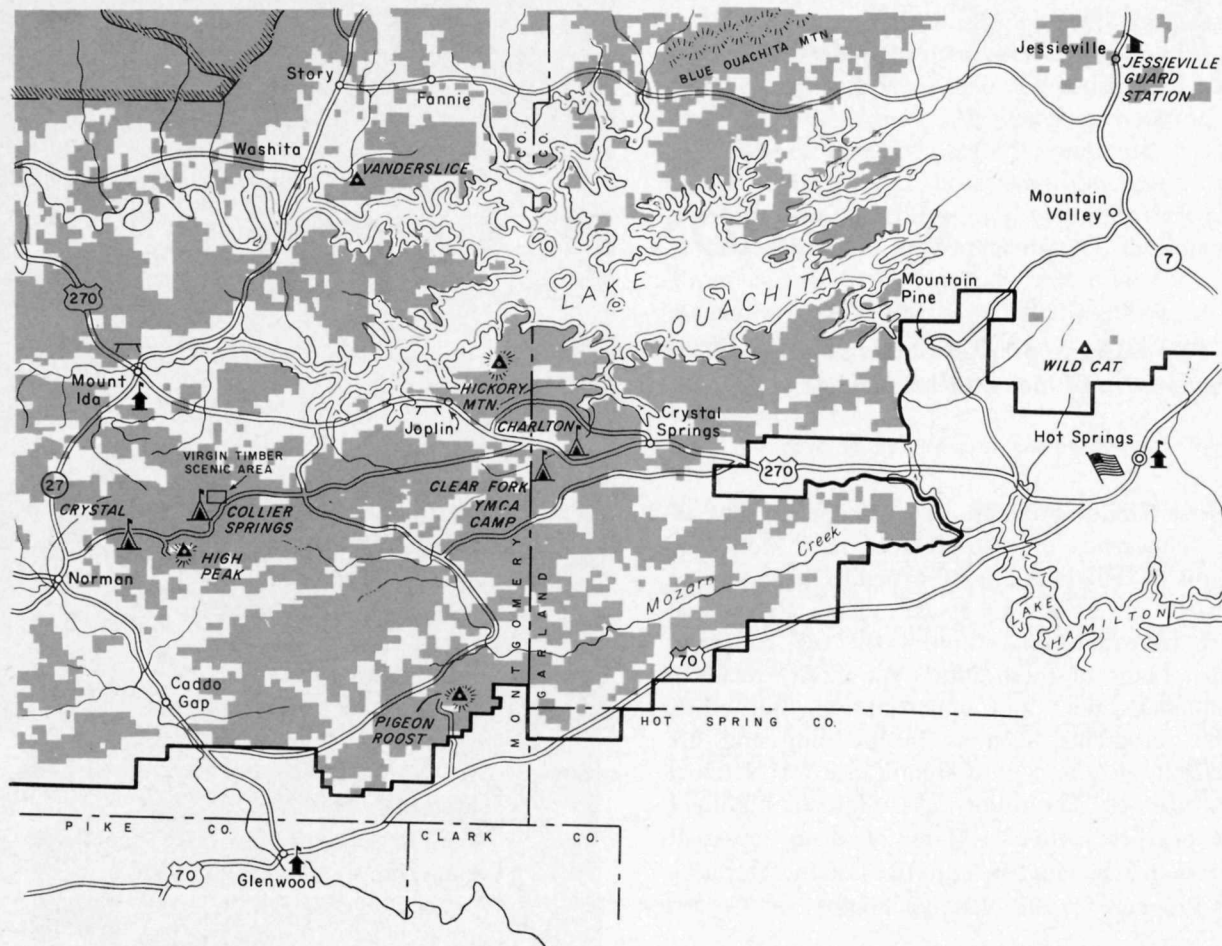


Figure 21—National Forest ownership pattern in Arkansas, showing fairly typical fragmented ownership.

employees and other groups in planning ways and means to secure and maintain desirable population of wildlife species—including orderly sustained harvests of crops of fish, game, and fur bearers as permitted under State laws, and other management practices.

A specific Forest Service policy of long standing is to preserve rare or endangered species by special management practices. Also, development of natural populations of native species is encouraged in preference to artificial stocking of fish or game, introduction of exotic species, or similar management techniques.

Although the policies outlined above may have to be modified, and new ones added, National Forest resource management policies will be maintained in the same general pattern that has prevailed in the past.



F-474770
New fish and waterfowl habitat created through State-Federal cooperation.

V. ACTION PROGRAMS

. . . Forest Service programs translate policy into actions designed to assure all Americans continued enjoyment of their outdoor heritage . . .

Forest Service programs translate policy into action. Thousands of man-years of hard work and millions of dollars are being expended each year in a variety of actions to assure adequate National Forest recreation opportunities for the American public. Many of these efforts specifically relate to recreational values and opportunities. But other, broader programs, such as roadbuilding and fire protection, also hold great significance for National Forest visitors. The following paragraphs highlight some of these actions. Many of them represent progress in achieving the objectives of the Development Program for the National Forests.

Facility Construction

The need for massive facility development programs to catch up with the overwhelming demand in recent years is evident. To date, the increasing volumes of use have resulted in a holding action rather than equating supply with demand. Until recent years, expanded development programs have generally served only to maintain the status quo rather than to eliminate overuse (fig. 22).

Construction of campgrounds, picnic sites, etc., is the most critical program at this time. Many of these developed sites are being swamped with a volume of use far above their designed capacity.

Continued acceleration of facility construction will be required to further reduce or eliminate overcrowding in the face of steadily increasing volumes of use. Prospects for closing the gap depend upon how completely this portion of the Development Program for the National Forests is implemented.

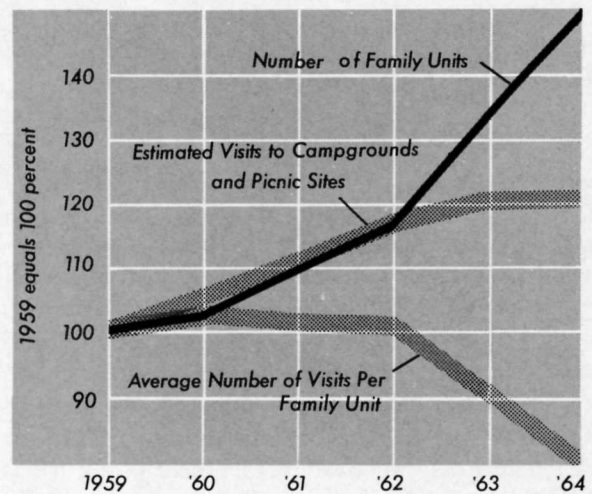


Figure 22.—Construction speedup in 1963 began to reduce overloads at camping and picnic sites.

The Accelerated Public Works program, signed into law September 16, 1962, gave a significant boost to construction and other actions related to recreational use. The following accomplishments were among those resulting from this special program:

| | |
|---------------------------------------|--------------------|
| Camp and picnic area construction | 6,967 family units |
| Road construction and reconstruction | 3,172 miles |
| Trail construction and reconstruction | 1,309 miles |

Even with these accomplishments, total development has not reached the levels scheduled in the Development Program—and some National Forest areas were not eligible under the APW program.



F-488071
Overcrowding at the Trout Creek campground, San Bernardino National Forest, Calif.

In the 5-year Operation Outdoors program concluded in 1962, the Forest Service renovated 21,578 family camp and picnic units and constructed 17,051 new ones. In addition, 30 winter sports areas were expanded or developed and 59 swimming sites were constructed. Several boat launching sites, scenic overlooks, and other facilities were constructed.

The schedule of development in the Development Program for the National Forests calls for a considerably faster pace than that of Operation Outdoors. This 10-year program proposes actions to:

Reconstruct and rehabilitate more than 2,000 existing campgrounds.

Plan and develop 28,000 new campgrounds and picnic sites.

Plan and develop 4,000 swimming, boating, winter sports, public service, and other sites.

Provide special development and information service for outstanding heavily used scenic and recreation features.

In addition, this program is directed toward adequate sanitation, cleanup, safe water, fire prevention, and public safety at all developed recreation sites and in heavily used unimproved areas.

The use of private capital to develop recreational facilities on National Forest land is increasing

Forest Service crew completing new family camping unit; Nantahala National Forest, N.C.

F-494687





F-495575

Clearing a beach for recreational use; Nicolet National Forest, Wis.



F-481008

Oregon State Game Commission men planting rainbow trout; Wallowa-Whitman National Forests.

sharply. In 1964 there were some 1,300 commercial recreation businesses owned by concessioners under special use permits. They represent more than \$100 million in capital investments and return more than \$500,000 annually to the United States in land use fees. Use of National Forest land developed for recreation by private capital under special use permit amounts to about one-fourth of the visits to all developed recreation sites.

On winter sports areas, the uphill transport devices available as of June 30, 1964, totaled 134 chairlifts and gondolas, 134 T-bar and other drag lifts, and 343 rope tows. Few of these would have been developed without the combination of private capital and public lands.

Fish and Wildlife Habitat Improvement

Actions to improve fish and wildlife habitat in the National Forests take three basic forms. They are (1) coordination of all other activities and uses which influence the forest environment; (2) cooperation with State agencies; and (3) direct resource development projects undertaken by the Forest Service.

Resource managers are trained to coordinate wildlife habitat requirements with timber, range, recreation, watershed, and other resource management activities. Detailed resource management plans for ranger districts or other administrative units specify the coordinating actions required.

Cooperation with States involves making fish and game habitat surveys for each of the major species; planning, inspection, and control of habitat improvement projects; evaluation of land and water use proposals related to fish and wildlife habitat; determination of carrying capacity of forest, range, and water resources; consideration of hunting and fishing regulations; and many other matters.

There are many instances of effective cooperation. For example, the State of Virginia provides for a National Forest Stamp as a requirement for hunting and fishing in the National Forests. Proceeds from sale of these stamps are used for improvement of wildlife habitat on National Forest lands under plans jointly approved by the State and by the Forest Service. Other States have similar arrangements.

Direct improvement of fish and wildlife habitat on the National Forests involves treatment of small areas which return large dividends in terms of increased carrying capacity and improved characteristics of fish and game populations. The character and extent of these actions are indicated by the fol-

lowing tabulation of accomplishment during the period 1959-64:

| | |
|---------------------------------------|----------------|
| Wildlife food and cover improvements | 330,000 acres |
| Small water developments for wildlife | 3,263 projects |
| Fish stream improvements | 1,220 miles |
| Lake improvements for fish | 10,500 acres |
| Waterfowl lakes constructed (1961-64) | 2,637 acres |

The Development Program for the National Forests scheduled 10-year accomplishment objectives including: Improve 1.5 million acres of game range, 7,000 miles of stream, and 56,000 acres of

lakes; and develop 400,000 acres of wildlife openings, food patches, and game ways. This schedule represents a rapid acceleration above comparable actions of a few years ago.

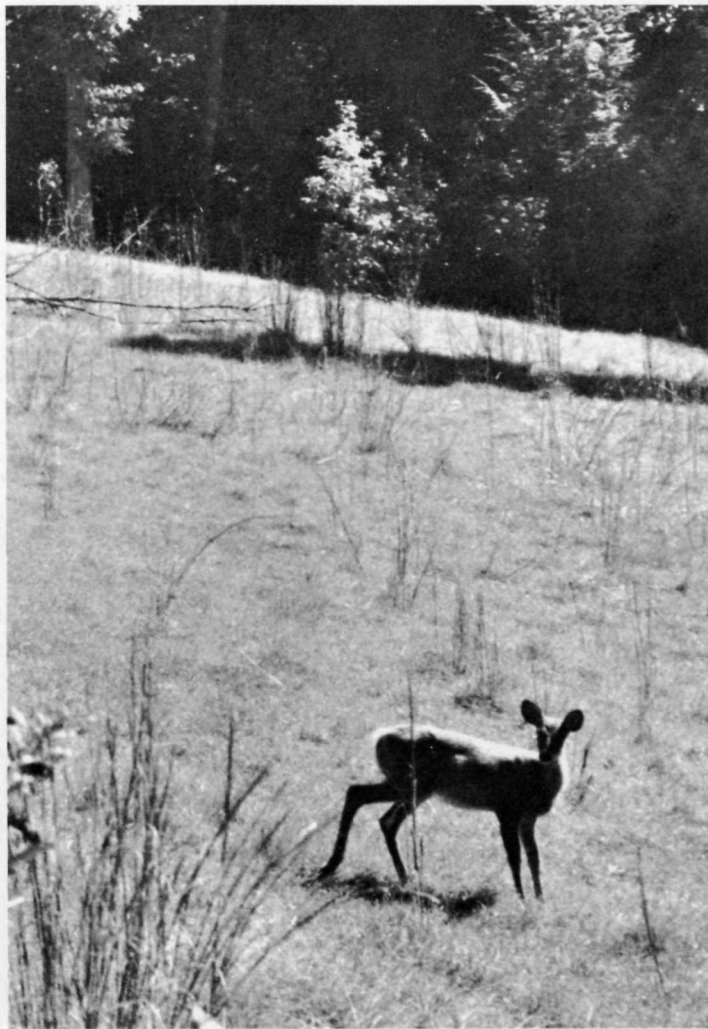
Wilderness

During the period 1959 to September 3, 1964, 6 new Wilderness and Wild Areas were established; their aggregate area was 595,477 acres. In the same period, 10 Primitive Areas containing about 3 million acres were reclassified; 5 as Wilderness and 5 as Wild Areas. The lengthy sequence of public hearings and discussions during this period indicates the



F-486293

To benefit wildlife, den trees are spared in stand improvement cuttings; Pisgah National Forest, N.C.



F-496456

A wildlife clearing and a visible result; Jefferson National Forest, Va.

Research

The Forest Service has long had primary responsibility for forestry research financed by the Federal Government. A comprehensive "National Forestry Research Program" to guide Forest Service research activities during the next decades was sent to the Congress in 1964. A significant part of that program, and of current Forest Service research, is related to recreation management and use of the National Forests. This task requires the individual and team effort of scientists trained in the natural and social sciences and related disciplines. Already a score of professional researchers work full time on problems of forest recreation.

Broad research objectives are to obtain sound information that will help resource managers to:

1. Improve the recreation opportunities on forest lands through a better understanding of the recreationists' needs and desires.
2. Restore worn and damaged forest recreation sites; select and plan new sites; and manage areas so that a desirable recreation environment can be maintained.
3. Determine the economic aspects of forest recreation development.
4. Coordinate recreation development and use with other critical demands upon forest resources—timber, range, water, and wildlife.



F-435145

Stream improvement for better trout habitat; Green Mountain National Forest, Vt.

scope of the review and reclassification task now in progress. Thirty-four Primitive Areas remain to be classified under terms of the Wilderness Act of 1964.

Plans have been or are being formulated to prescribe specific wilderness management procedures to be followed in each case. Programed actions in the years ahead will include intensified management and care of all wilderness-type areas to protect them and to meet growing public use.

A wilderness with unique attractions; Boundary Waters Canoe Area, Superior National Forest, Minn.

F-494895



To meet these objectives, current studies are providing information concerning (1) intensively used and extensively used recreation sites and the management of their soils and vegetation; (2) the income opportunities for recreation enterprises on privately owned woodlands; (3) the people who visit the forests, woodlands, and wilderness areas for their outdoor recreation enjoyment; and (4) estimates of the amount and kind of use these lands are getting now and are likely to get in the future.

Because Forest Service recreation research deals with resources and their use, much of it is directly applicable to the National Forests as well as lands in other ownerships. For example, research results from studies directed toward improving sites worn by heavy visitor use are being incorporated into site development plans. Studies of the impact of recreation site development on timber production, new concepts such as the "micro-wilderness" area previously described, and improved techniques for counting visitors and relating these counts to type and amount of recreation activity, are adding to the knowledge needed by resource administrators. Such research efforts will be instrumental in achieving more satisfying recreational experiences for more people in the years ahead—without deterioration of the forest environment.

Research activities of the Bureau of Outdoor Recreation should strengthen the foundation of knowledge needed by responsible resource managers. The work of the Outdoor Recreation Resources Review Commission, published in 27 reports, established much basic information. Universities, foundations, and other institutions have begun appropriate studies related to the problems of outdoor recreation. Resource managers are making administrative studies of specific immediate problems or needs—for example, automatic fee-collection devices. There is a need for all of the research effort that is being brought to bear in the field of recreation resource management. Pressures arising from increased use of the National Forests must be met by action programs—and the effectiveness of those programs will depend largely upon the amount and quality of information available to program planners and administrators.

National Forest Recreation Ways

Development of parkway-type roads through scenic areas of the National Forest System has proceeded slowly on a project-by-project basis. In 1963 the Forest Service completed an evaluation of development opportunities for Recreation Ways—safe,



F-479799

Researchers and administrators must learn from the visitors themselves; Boise National Forest, Idaho.



F-496826

Scenic overlook, Custer National Forest in Montana.

esthetically attractive, limited-access routes through National Forest areas of outstanding scenic quality. That evaluation disclosed 180 potential locations—the equivalent of approximately one 46-mile recreation way per million acres of National Forest and per million Americans. Recreation Ways would be more than ribbons of pavement. They would include recreation facilities such as overlooks, information features, picnic areas, and campgrounds situated out of sight along the way.

A tentative 10-year National Forest Recreation Way development program has been prepared as the result of the Forest Service study. Forty-one Recreation Ways in 29 States, about equally divided between East and West, are included in the proposed 10-year construction program. This development program is directly responsive to the Outdoor Recreation Resources Review Commission finding that recreational driving is the most popular form of outdoor recreation (fig. 23).

The President's Recreation Advisory Council in April 1964 issued Circular No. 4, entitled "A National Program of Scenic Roads and Parkways." A comprehensive interdepartmental study of this subject was immediately launched and is scheduled for completion in 1965. The Forest Service is participating fully in this study. The proposed National

Forest Recreation Ways program is encompassed by this study because a large share of the most scenic potential locations on the public lands is found within the National Forests. The timing and scope of recreation ways development in the National Forests will reflect the judgment of these groups and, of course, the availability of funds.

Multipurpose Road Construction

Although typical multipurpose forest development roads are not similar to the proposed National Forest Recreation Ways, many do provide opportunities for pleasurable driving. All of them are useful to hunters, fishermen, hikers, and all others interested in getting into the back country (fig. 24).

During the period 1959–64, more than 6,600 miles of roads were constructed or reconstructed to higher standards with appropriated funds. In addition, purchasers of Government timber constructed or reconstructed 23,536 miles of roads. During that period, 1,963 bridges were constructed or replaced and 1,771 miles of new or improved trails were built.

The Development Program for the National Forests scheduled construction of 46,400 miles of multipurpose roads and 8,000 miles of trails in the

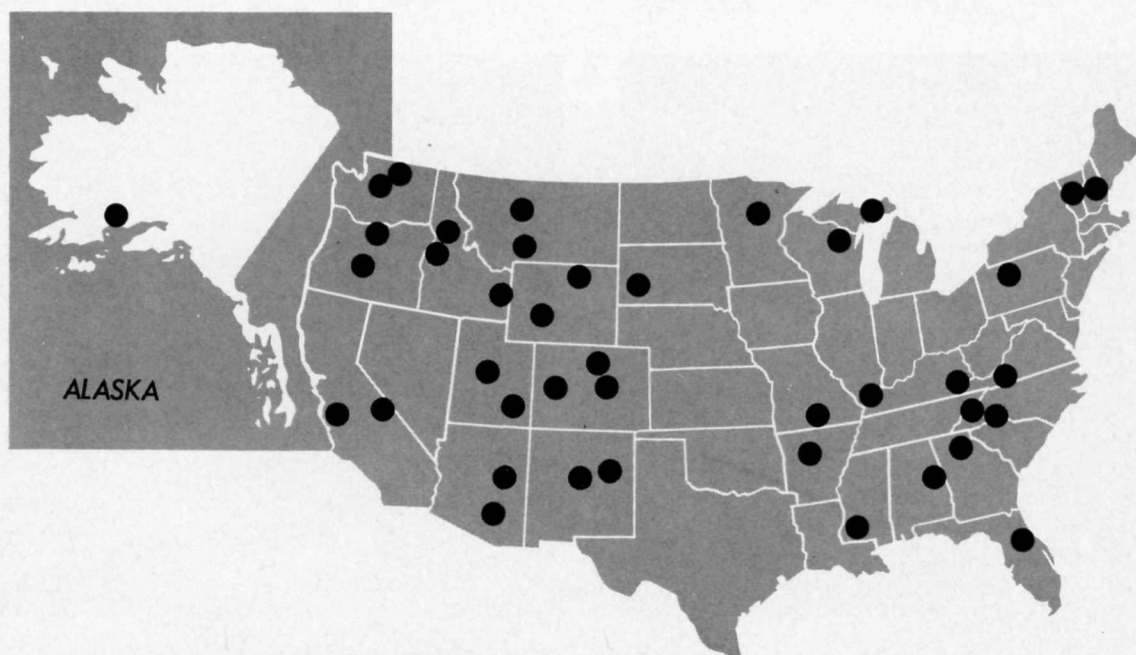


Figure 23.—Locations of projected National Forest Recreation Ways in proposed 10-year construction program.

10-year period. Timber purchasers were expected to build an estimated additional 33,000 miles of roads. This road construction schedule indicates the substantial acceleration required because of the rapid increase in all uses of the National Forests.

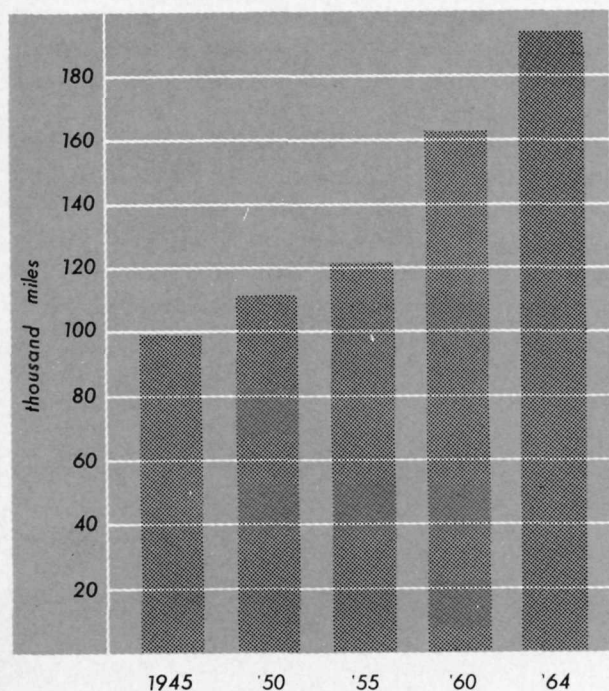


Figure 24.—Trend in National Forest road system mileage, 1945–64.



F-495733

A new forest development road, Nicolet National Forest, Wis.



F-501795

A new forest trail in the Bitterroot National Forest, Mont.

Land Acquisition

Land purchases and exchanges are continuously in progress to improve National Forest ownership patterns. These actions facilitate resource administration and increase the value of these lands for public use. During the fiscal years 1960–64, 991 tracts totaling almost 97,000 acres were approved for purchase as additions to the National Forest System. Most of this acreage was acquired under provisions of the Weeks law.

Four hundred and forty land exchange agreements were approved during this period, whereby the United States would trade some 281,000 acres of Government land and timber for some 406,000 acres of private, State, or other lands within National Forest and National Grassland boundaries. Improved access is also obtained by acquiring rights-of-way for road construction or public use of existing roads in private ownership. For example, in 1964 a total of 1,226 rights-of-way over 1,037 miles of proposed or existing roads were acquired.



F-491316
Not all land within National Forest boundaries is open to the public; Santa Fe National Forest, N. Mex.

With funds provided pursuant to Public Law 733 of June 22, 1948, much of the privately owned land within the Boundary Waters Canoe Area has been acquired by the United States for the purpose of eliminating developments and uses incompatible with its unique natural characteristics. Some county and State lands will be acquired and others will continue to be managed by the respective agencies in correlation with the objectives of the Canoe Area. Tracts have also been acquired on the shores of Lake Michigan, in the Ouachita Mountains of Arkansas and Oklahoma for recreation ways, in Georgia to accommodate scenic roadways, and in various other National Forest areas where additional lands are needed to realize the potential for public service.

Since 1911, more than 18 million acres have been purchased under the Weeks law. Much of this land has value for dispersed types of recreation such as hunting, fishing, hiking, and touring.

The Land and Water Conservation Fund Act of 1965 provides that a portion of the receipts from recreation user charges and other sources shall be used for acquisition of lands or waters within the National Forests which are primarily valuable for recreation. Approximately 4 million acres of such tracts may be acquired with these funds during the next 10 years, 85 percent of this in the East.

Visitor Information Services

The increasing volume of recreation use has stimulated efforts to establish adequate information services. The Visitor Information Service program has grown rapidly since its inception. The Development Program for the National Forests schedules such services at some 180 locations within the National Forest System.

This program is directed toward establishment of numerous small projects such as self-guiding nature trails and auto tours as well as the more complex Visitor Information Centers. A visitor's trip is meaningful and enjoyable in almost direct proportion to what he understands about the area he is visiting. This fact underscores the importance of explaining and interpreting history, geology, ecology, zoology, botany, archaeology, and the resource management activities in the National Forests.

Placement of signs to guide visitors as they travel through the forest is another rapidly growing program. The variety of these signs is immense. Some



F-487751
An informational sign in New Hampshire.

keep visitors from getting lost, some direct them toward a campground or other destination, and others interpret many aspects of the forest environment. They vary in size and cost as well as in character and purpose. The art of interpretive signing is an important part of this program as well as the techniques of scheduling, placement, materials selection, construction, and other technical aspects.

Resource Protection

There has been a continuing downward trend in National Forest area burned by wildfires. The 5-year averages charted in figure 25 mask the annual and regional variations caused by weather or other factors. For example, the 1964 fire season was about normal in the East and South, below normal in the northern Rocky Mountains and Pacific Northwest, and severe for several months in California and the Southwest. A disastrous fire on the Los Padres National Forest in September near Santa Barbara burned 67,000 acres and caused damage estimated at \$20 million. Fires like this, together with the upswing in the number of man-caused fires, preclude any complacency in looking ahead.

Progress in fire control is indicated by the long-term reduction in the average area burned per fire. This area is currently about 10 acres—less than half of the average size during the past 10 years. Fast, hard-hitting aerial attack including airtanker drops of fire retardants, helicopter drops of men and materials, and use of smokejumpers, together with strong support from research programs, deserves much of the credit for this improvement. The outlook for continued progress in fire protection provides additional reason for optimism in looking toward future recreation opportunities.

The 10-year Development Program recognizes the need for intensified resource protection measures of all kinds. For example, increasing recreational use automatically creates increased fire hazards despite fire prevention campaigns and careful use of fire by most recreationists. The program calls for intensified protection measures which would approximately double the use of manpower, equipment, and aerial operations. If the program is implemented in full, hazardous fuels will be reduced on 4 million acres, and 11,000 miles of firebreaks will be constructed. More than 1,800 landing places for helicopters will

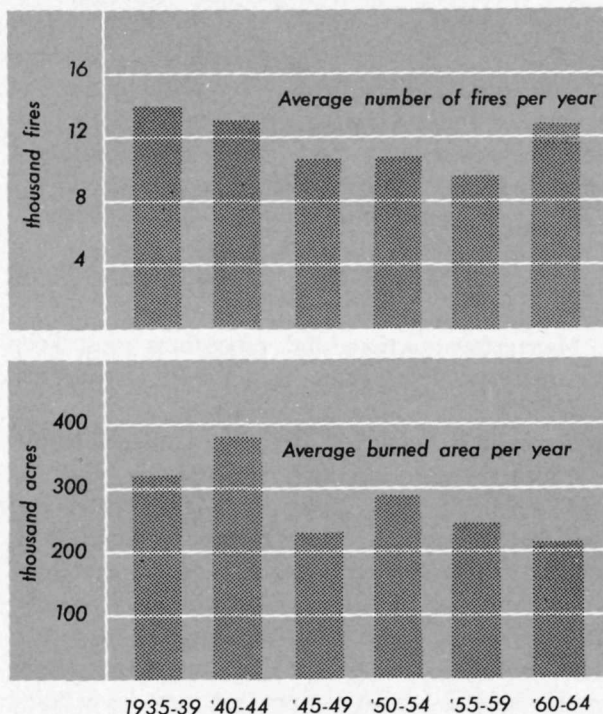
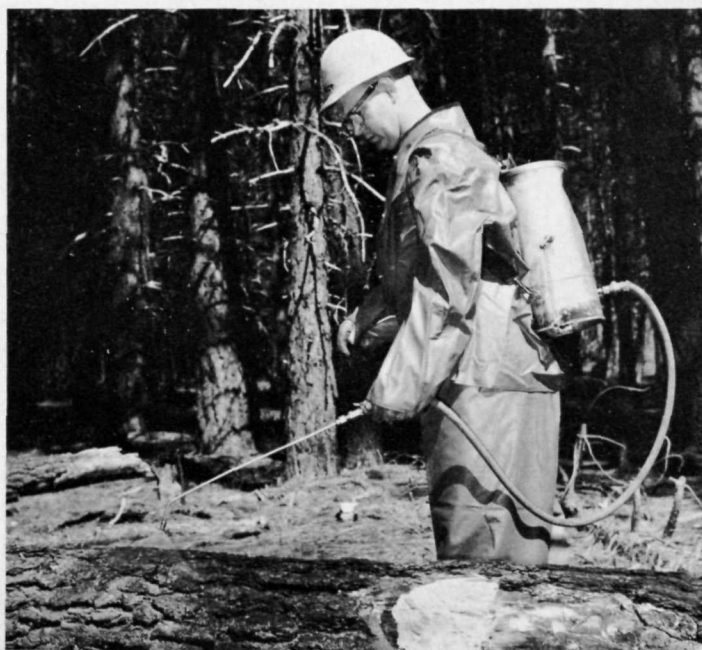


Figure 25.—Trends in fires and area burned in National Forests.

be constructed and appropriate preventive measures will be taken at areas where recreation use is concentrated.

Also scheduled are actions to reduce resource damage from insects, disease, erosion, weather, destructive animals and other causes less spectacular than wildfires. All of these actions would enhance or protect the forest environment so essential to outdoor recreation in the National Forests.

Bark beetle control work in California; Shasta National Forest. F-499296



The accomplishment scheduled in the Development Program must, of course, be financed through annual appropriations by the Congress. In the first 3 years of the 10-year program period, appropriations have not kept pace with the development schedule recommended in the program.

Management Programs

Management actions and procedures must keep pace with the development and protection programs outlined above. Increased volumes of resource use, in combination with broadened and intensified administrative responsibilities, require new and improved management practices. Recreation-related activities in particular are challenging resource administrators to develop better methods of operation. Maintenance of facilities, supervision of heavily used recreation areas, law enforcement, informational activities, and public safety are a few of the routine administrative matters that must be handled on a typical Ranger District.

Collection and analysis of data relating to recreation use and resource development is an especially challenging aspect of management programs at all administrative levels. Automatic data processing to

harness the flood of statistics is only the mechanical part of the task. Finding out what to measure and how and when it should be measured is at the center of current studies designed to strengthen resource management programs.

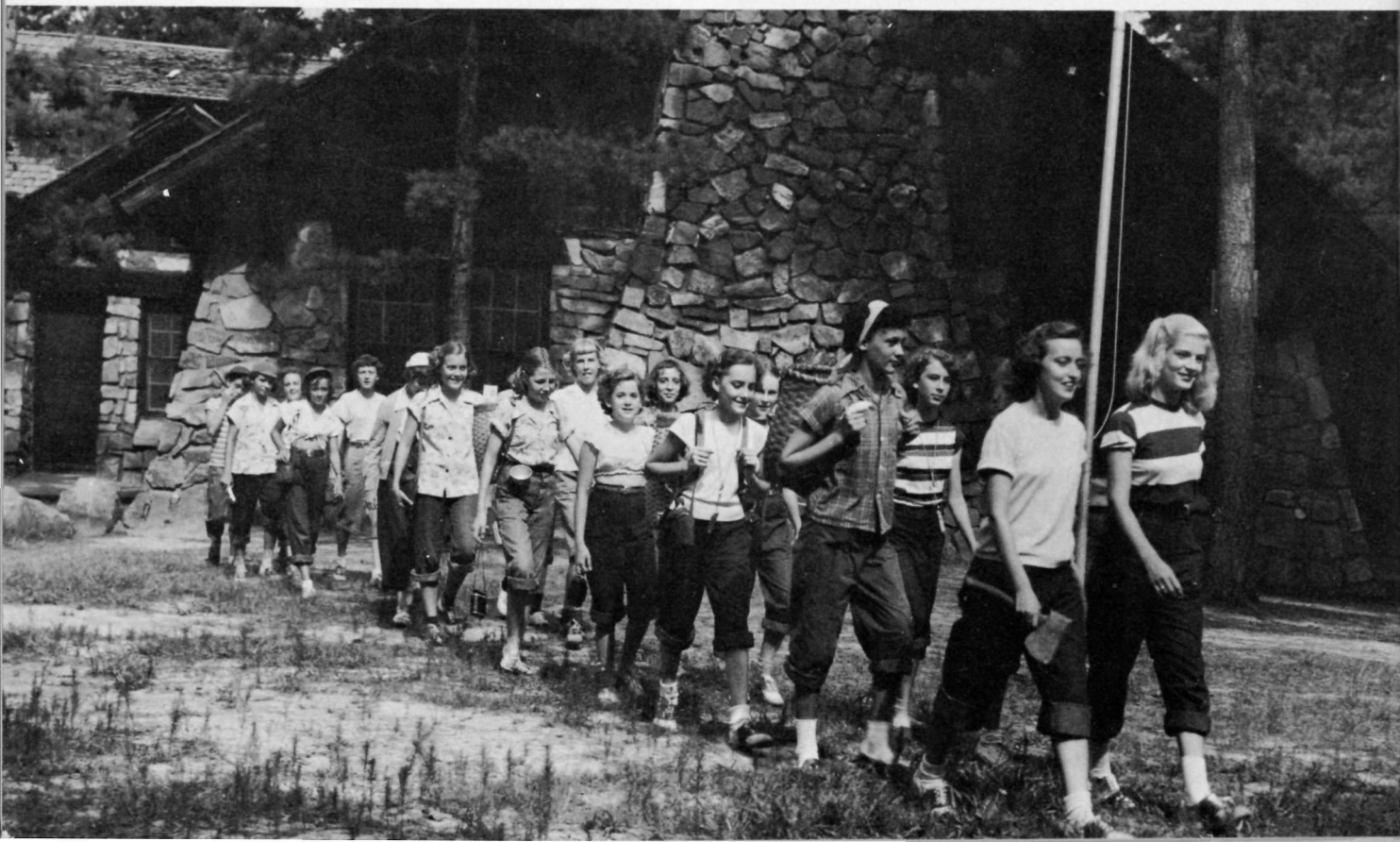
Improvement in management techniques has been achieved in the past few years as a result of the National Forest Recreation Survey and other studies. But much remains to be done because National Forest recreation programs and activities surmount any previous level. Although problems remain to be faced, continued long-range planning and programmed actions will enable Americans to use and enjoy this portion of their national heritage in the years to come.

The pattern of future resource use is not rigidly cast. Prospects of change require a capacity for responsive actions. Although irreversible management decisions must be made, they can be made with a full awareness of their consequences and with long-range management objectives clearly set forth.

Each decade will bring its own challenges and opportunities and the need for new appraisals; each generation will have to grapple with new situations. But for now, the needed perspective is complete, the resources lie waiting, and new policies and programs are emerging. The way is clear for action.

Generation after generation of Americans will continue to use America's Playgrounds. Ouachita National Forest, Ark.

F-458271



VI. APPENDIX

| <i>Table No.</i> | <i>Title</i> | <i>Page</i> | <i>Table No.</i> | <i>Title</i> | <i>Page</i> |
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| 2 | Recreation visits to the National Forests, 1924-64 ----- | 91 | 8 | Developed recreation sites in National Forests and National Grasslands, June 30, 1964 ----- | 95 |
| 3 | Use of recreation resources in the National Forests, 1964 ----- | 92 | 9 | The National Forest wilderness system, 1930-1965 ----- | 99 |
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| 6 | Estimated legal harvest of big-game animals in National Forests and National Grasslands, 1964 ----- | 93 | | | |

TABLE 1.—*National Forests and other lands administered by the Forest Service, June 30, 1964*

| State, Commonwealth, or Territory | National Forest ¹ | National Grassland | Land utilization projects | Total |
|--------------------------------------|---------------------------------|-----------------------|---------------------------------|--------------|
| | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> | <i>Acres</i> |
| Alabama | 631,542 | 0 | 0 | 631,542 |
| Alaska | 20,741,964 | 0 | 0 | 20,741,964 |
| Arizona | 11,410,808 | 0 | 0 | 11,410,808 |
| Arkansas | 2,423,425 | 0 | 0 | 2,423,425 |
| California | 19,951,407 | 0 | 19,115 | 19,970,522 |
| Colorado | 13,718,164 | 611,970 | 560 | 14,330,694 |
| Florida | 1,075,089 | 0 | 0 | 1,075,089 |
| Georgia | 777,444 | 0 | 9,340 | 786,784 |
| Idaho | 20,298,262 | 47,599 | 0 | 20,345,861 |
| Illinois | 211,554 | 0 | 0 | 211,554 |
| Indiana | 122,710 | 0 | 3,180 | 125,890 |
| Iowa | 0 | 0 | 360 | 360 |
| Kansas | 0 | 107,114 | 0 | 107,114 |
| Kentucky | 460,693 | 0 | 0 | 460,693 |
| Louisiana | 591,637 | 0 | 0 | 591,637 |
| Maine | 49,558 | 0 | 465 | 50,023 |
| Massachusetts | 1,651 | 0 | 0 | 1,651 |
| Michigan | 2,573,139 | 0 | 6,695 | 2,579,834 |
| Minnesota | 2,770,352 | 0 | 0 | 2,770,352 |
| Mississippi | 1,134,006 | 0 | 0 | 1,134,006 |
| Missouri | 1,359,143 | 0 | 12,938 | 1,372,081 |
| Montana | 16,637,813 | 0 | 0 | 16,637,813 |
| Nebraska | 245,409 | 94,307 | 0 | 339,716 |
| Nevada | 5,058,500 | 0 | 0 | 5,058,500 |
| New Hampshire | 678,104 | 0 | 0 | 678,104 |
| New Mexico | 8,863,175 | 133,904 | 89,426 | 9,086,505 |
| New York | 0 | 0 | 13,747 | 13,747 |
| North Carolina | 1,125,196 | 0 | 0 | 1,125,196 |
| North Dakota | 520 | 1,104,330 | 0 | 1,104,850 |
| Ohio | 110,852 | 0 | 0 | 110,852 |
| Oklahoma | 224,796 | 46,607 | 0 | 271,403 |
| Oregon | 15,362,096 | 102,920 | 0 | 15,465,016 |
| Pennsylvania | 471,620 | 0 | 0 | 471,620 |
| South Carolina | 587,164 | 0 | 0 | 587,164 |
| South Dakota | 1,121,137 | 864,268 | 2,885 | 1,988,290 |
| Tennessee | 597,625 | 0 | 1,212 | 598,837 |
| Texas | 658,027 | 117,269 | 0 | 775,296 |
| Utah | 7,946,494 | 0 | 0 | 7,946,494 |
| Vermont | 232,469 | 0 | 0 | 232,469 |
| Virginia | 1,453,853 | 0 | 0 | 1,453,853 |
| Washington | 9,687,801 | 0 | 520 | 9,688,321 |
| West Virginia | 905,647 | 0 | 0 | 905,647 |
| Wisconsin | 1,468,085 | 0 | 1,130 | 1,469,215 |
| Wyoming | 8,570,617 | 573,167 | 0 | 9,143,784 |
| Puerto Rico | 27,889 | 0 | 27 | 27,916 |
| Virgin Islands | 147 | 0 | 0 | 147 |
| Total | 182,337,584 | 3,803,455 | 161,600 | 186,302,639 |

¹ This column includes all lands administered by the Forest Service, except National Grasslands and land utilization project lands which are shown separately.

TABLE 2.—*Recreation visits to the National Forests, 1924–64*

| Calendar year | Campgrounds | Picnic sites | Winter sports sites | Hotels and resorts | Recreation residences | Other forest areas ¹ | Total |
|-------------------|-------------|--------------|---------------------|--------------------|-----------------------|---------------------------------|-------------|
| 1924 | 1,588,489 | 1,871,534 | ..... | 1,018,541 | 181,825 | ..... | 4,660,389 |
| 1925 | 2,129,968 | 2,086,717 | ..... | 1,161,660 | 243,861 | ..... | 5,622,206 |
| 1926 | 2,056,742 | 2,403,411 | ..... | 1,318,965 | 265,149 | ..... | 6,044,267 |
| 1927 | 1,845,709 | 2,623,608 | ..... | 1,350,123 | 317,373 | ..... | 6,136,813 |
| 1928 | 1,845,693 | 2,937,511 | ..... | 1,381,595 | 385,518 | ..... | 6,550,317 |
| 1929 | 1,902,961 | 3,056,456 | ..... | 1,795,861 | 376,780 | ..... | 7,132,058 |
| 1930 | 1,980,736 | 3,272,682 | ..... | 1,330,610 | 326,896 | ..... | 6,910,924 |
| 1931 | 2,193,866 | 3,765,025 | ..... | 1,618,460 | 496,566 | ..... | 8,073,917 |
| 1932 | 2,178,231 | 4,048,796 | ..... | 1,138,634 | 530,182 | ..... | 7,895,843 |
| 1933 ² | 2,219,804 | 4,355,936 | ..... | 1,037,096 | 552,685 | ..... | 8,165,521 |
| 1934 ² | 2,343,132 | 4,610,171 | ..... | 1,014,008 | 613,495 | ..... | 8,580,806 |
| 1935 ² | 2,395,658 | 5,326,037 | ..... | 1,268,998 | 727,637 | ..... | 9,718,330 |
| 1936 ² | 2,421,275 | 5,811,720 | ..... | 1,712,134 | 835,965 | ..... | 10,781,094 |
| 1937 ² | 2,836,040 | 5,973,930 | ..... | 2,165,329 | 857,359 | ..... | 11,832,658 |
| 1938 ² | 3,181,817 | 7,627,914 | ..... | 2,758,224 | 927,319 | ..... | 14,495,274 |
| 1939 | 3,157,490 | 7,019,180 | 1,289,211 | 1,987,812 | 878,168 | ..... | 14,331,861 |
| 1940 | 3,583,091 | 7,931,485 | 1,538,432 | 2,257,548 | 852,411 | ..... | 16,162,967 |
| 1941 | 3,349,898 | 5,818,963 | 1,519,054 | 1,917,766 | 601,288 | 4,797,816 | 18,004,785 |
| 1942 | 1,771,340 | 3,300,632 | 993,920 | 1,136,271 | 379,599 | 2,825,358 | 10,407,120 |
| 1943 | 1,095,212 | 2,050,384 | 266,765 | 679,863 | 244,385 | 1,938,050 | 6,274,659 |
| 1944 | 1,246,768 | 2,051,077 | 287,426 | 715,369 | 370,173 | 2,481,140 | 7,151,953 |
| 1945 | 1,814,928 | 2,729,376 | 527,291 | 1,271,369 | 505,963 | 3,225,162 | 10,074,089 |
| 1946 | 3,055,114 | 4,458,748 | 1,249,200 | 2,286,107 | 713,380 | 6,478,128 | 18,240,677 |
| 1947 | 3,518,147 | 5,262,600 | 1,725,675 | 2,110,406 | 535,978 | 8,177,945 | 21,330,751 |
| 1948 | 3,424,088 | 6,682,158 | 2,284,943 | 1,928,756 | 572,499 | 9,118,520 | 24,010,964 |
| 1949 | 3,837,010 | 7,659,234 | 1,712,607 | 1,929,597 | 615,242 | 10,326,565 | 26,080,255 |
| 1950 | 3,858,845 | 7,577,575 | 1,504,575 | 1,902,140 | 627,481 | 11,897,181 | 27,367,797 |
| 1951 | 4,140,866 | 8,669,341 | 1,929,270 | 2,133,674 | 636,173 | 12,440,928 | 29,950,252 |
| 1952 | 4,527,979 | 9,515,926 | 1,758,073 | 2,500,196 | 670,632 | 14,034,079 | 33,006,885 |
| 1953 | 4,810,341 | 10,335,910 | 1,944,193 | 2,564,219 | 758,493 | 14,989,894 | 35,403,050 |
| 1954 | 5,806,130 | 11,467,849 | 2,362,420 | 2,990,264 | 864,568 | 16,812,806 | 40,304,037 |
| 1955 | 6,796,706 | 12,418,342 | 2,977,220 | 3,230,860 | 863,332 | 19,426,408 | 45,712,868 |
| 1956 | 7,204,986 | 14,667,226 | 3,040,513 | 4,128,912 | 851,474 | 22,662,973 | 52,556,084 |
| 1957 | 8,352,360 | 16,138,508 | 3,158,675 | 4,211,682 | 828,550 | 28,267,498 | 60,957,273 |
| 1958 | 9,324,700 | 17,845,200 | 4,127,000 | 4,117,300 | 850,400 | 32,184,900 | 68,449,500 |
| 1959 | 9,955,800 | 19,283,300 | 4,184,100 | 4,597,400 | 896,300 | 42,604,100 | 81,521,000 |
| 1960 | 10,878,000 | 19,800,800 | 4,706,800 | 4,575,500 | 1,114,200 | 51,519,200 | 92,594,500 |
| 1961 | 11,835,100 | 20,456,800 | 4,478,300 | 5,309,900 | 1,175,600 | 58,656,800 | 101,912,500 |
| 1962 | 12,940,900 | 21,283,600 | 5,575,800 | 6,161,600 | 1,183,800 | 65,616,500 | 112,762,200 |
| 1963 | 13,562,500 | 21,575,400 | 6,677,600 | 4,917,000 | 1,347,900 | 74,501,600 | 122,582,000 |
| 1964 | 14,152,100 | 21,476,900 | 7,911,800 | 5,719,700 | 1,395,600 | 83,106,200 | 133,762,300 |

¹ Wilderness-type areas, organization camps, and other areas.² Fiscal years.

TABLE 3.—*Use of recreation resources in the National Forests, calendar year 1964*

| State and Commonwealth | Number of visits (thousands) | | | | | | | | Total |
|---------------------------|------------------------------|-----------------|---------------------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------|
| | Camp- grounds | Picnic sites | Winter sports sites | Organi- zation camps | Hotels and resorts | Recreation residences | Wilder- ness areas | Other forest areas | |
| Alabama | 50.1 | 338.2 | 0 | 1.2 | 0 | 0 | 0 | 190.4 | 579.9 |
| Alaska | 31.8 | 99.6 | 40.3 | 1.1 | 34.5 | 12.6 | 0 | 778.0 | 997.9 |
| Arizona | 1,087.9 | 2,109.8 | 160.9 | 66.0 | 589.2 | 65.8 | 18.3 | 3,627.9 | 7,725.8 |
| Arkansas | 184.4 | 622.3 | 0 | 7.4 | 57.5 | 10.0 | 0 | 1,612.9 | 2,494.5 |
| California | 2,697.0 | 2,410.4 | 2,390.6 | 360.0 | 2,334.9 | 661.8 | 287.9 | 8,446.9 | 19,589.5 |
| Colorado | 1,179.8 | 1,317.4 | 1,048.6 | 30.0 | 257.0 | 54.8 | 53.0 | 10,627.3 | 14,567.9 |
| Florida | 267.6 | 463.4 | 0 | 17.1 | 1.3 | 19.4 | 0 | 1,237.3 | 2,006.1 |
| Georgia | 134.9 | 391.9 | 0 | 2.5 | 3.4 | 4.0 | 0 | 1,614.5 | 2,151.2 |
| Idaho | 917.5 | 399.2 | 337.2 | 28.1 | 161.4 | 52.2 | 61.1 | 3,186.9 | 5,143.6 |
| Illinois | 13.3 | 174.8 | 0 | 0 | 0 | 0 | 0 | 601.1 | 789.2 |
| Indiana | 1.2 | 35.7 | 0 | 0 | 0 | 0 | 0 | 160.0 | 196.9 |
| Kansas | 0 | 4.0 | 0 | 0 | 0 | 0 | 0 | 3.5 | 7.5 |
| Kentucky | 22.8 | 293.4 | 0 | 5.3 | 29.0 | 1.2 | 0 | 1,220.0 | 1,571.7 |
| Louisiana | 59.0 | 325.4 | 0 | 20.3 | 44.3 | 25.1 | 0 | 173.6 | 647.7 |
| Maine | 2.7 | 15.2 | 0 | .3 | 0 | 0 | 0 | 28.9 | 47.1 |
| Michigan | 163.4 | 225.7 | 332.7 | 11.5 | 7.4 | 14.8 | 0 | 3,992.4 | 4,747.9 |
| Minnesota | 112.5 | 83.4 | 25.0 | 8.4 | 41.2 | 13.5 | 246.1 | 1,270.7 | 1,800.8 |
| Mississippi | 23.8 | 357.1 | 0 | 10.8 | 13.0 | 0 | 0 | 533.5 | 938.2 |
| Missouri | 30.8 | 248.3 | 0 | .9 | 0 | 0 | 0 | 1,240.6 | 1,520.6 |
| Montana | 538.3 | 575.2 | 179.1 | 19.1 | 129.0 | 78.8 | 48.0 | 5,267.0 | 6,834.5 |
| Nebraska | 5.5 | 47.0 | 0 | 4.5 | 0 | 0 | 0 | 218.9 | 275.9 |
| Nevada | 252.3 | 219.0 | 37.3 | 10.2 | 0 | 2.7 | .7 | 320.9 | 843.1 |
| New Hampshire | 124.0 | 539.0 | 126.3 | 1.6 | 76.4 | 0 | 5.5 | 2,684.3 | 3,557.1 |
| New Mexico | 716.3 | 1,758.1 | 225.0 | 33.8 | 46.1 | 19.8 | 68.1 | 2,902.7 | 5,769.9 |
| North Carolina | 74.0 | 699.3 | 0 | 12.0 | 16.8 | 3.3 | 5.8 | 3,436.4 | 4,247.6 |
| North Dakota | 1.1 | 4.8 | 0 | 0 | 0 | 0 | 0 | 126.3 | 132.2 |
| Ohio | 11.1 | 98.4 | 0 | 0 | 0 | 0 | 0 | 141.1 | 250.6 |
| Oklahoma | 0 | 33.0 | 0 | 0 | 0 | 0 | 0 | 17.1 | 50.1 |
| Oregon | 1,487.0 | 1,283.0 | 843.7 | 174.8 | 1,219.5 | 75.1 | 62.2 | 3,934.3 | 9,079.6 |
| Pennsylvania | 52.6 | 234.5 | 0 | 19.7 | 0 | 24.7 | 0 | 1,577.9 | 1,909.4 |
| South Carolina | 18.2 | 252.0 | 0 | 0 | 0 | 0 | 0 | 567.4 | 837.6 |
| South Dakota | 274.6 | 404.0 | 21.9 | 15.8 | 12.6 | 19.5 | 0 | 2,091.3 | 2,839.7 |
| Tennessee | 282.8 | 997.8 | 0 | 19.5 | 63.2 | 27.2 | 0 | 1,498.1 | 2,888.6 |
| Texas | 190.7 | 275.1 | 0 | 4.7 | 1.1 | 0 | 0 | 548.0 | 1,019.6 |
| Utah | 1,364.1 | 2,385.9 | 561.6 | 80.9 | 76.0 | 92.2 | 43.1 | 4,627.8 | 9,231.6 |
| Vermont | 9.4 | 59.1 | 444.8 | 0 | 0 | 0 | 0 | 313.8 | 827.1 |
| Virginia | 74.7 | 316.7 | 0 | 6.2 | 0 | 2.3 | 0 | 3,326.4 | 3,726.3 |
| Washington | 998.4 | 331.3 | 991.3 | 54.8 | 200.0 | 66.0 | 24.1 | 1,956.5 | 4,622.4 |
| West Virginia | 48.6 | 273.7 | 0 | 10.1 | 0 | 0 | 0 | 940.1 | 1,272.5 |
| Wisconsin | 62.5 | 159.2 | 20.0 | 1.7 | .4 | 2.9 | 0 | 669.8 | 916.5 |
| Wyoming | 585.3 | 378.8 | 125.5 | 20.9 | 229.5 | 41.7 | 49.9 | 3,295.6 | 4,727.2 |
| Puerto Rico | .1 | 236.8 | 0 | 8.8 | 75.0 | 4.2 | 0 | 54.3 | 379.2 |
| Total | 14,152.1 | 21,476.9 | 7,911.8 | 1,070.0 | 5,719.7 | 1,395.6 | 973.8 | 81,062.4 | 133,762.3 |

TABLE 4.—*National Forest recreation sites and capacities, June 30, 1964*

| Type of facility | Number of sites | Area (acres) | Normal capacity ¹ | Type of facility | Number of sites | Area (acres) | Normal capacity ¹ |
|-------------------------|-----------------|--------------|------------------------------|----------------------|--------------------|--------------|------------------------------|
| Campground | 4,908 | 29,254 | 294,445 | Recreation residence | ² 2,215 | 18,971 | 105,978 |
| Picnic ground | 1,480 | 7,110 | 95,191 | Swimming site | 239 | 594 | 39,569 |
| Organization camp | 573 | 7,448 | 73,481 | Boating site | 516 | 919 | 39,434 |
| Hotel, lodge, or resort | 412 | 2,849 | 51,726 | Winter sports site | 196 | 42,469 | 241,974 |
| Other public service | 199 | 890 | 16,993 | Observation site | 292 | 643 | 15,446 |
| | | | | Total | 11,030 | 111,147 | 974,237 |

¹ Number of persons at one time.² These sites include 19,342 residences.TABLE 5.—*Primary purpose of visits by users of National Forest recreational resources, 1964*

| Primary purpose of visit | Number of visits | Primary purpose of visit | Number of visits |
|--------------------------|-------------------------|--|------------------|
| Camping | 10,420,500 | Canoeing and boating | 1,964,200 |
| Picnicking | 20,664,300 | Organization camping | 978,100 |
| Swimming | 3,748,600 | Wilderness travel | 525,000 |
| Winter sports | 7,773,300 | General enjoyment and sightseeing | 49,144,500 |
| Hunting | ¹ 10,817,400 | Gathering forest products for pleasure | 1,197,900 |
| Fishing | 19,358,000 | Scientific study and hobbies | 564,800 |
| Hiking and riding | 3,263,000 | Other activities | 3,342,700 |
| | | Total | 133,762,300 |

¹ Big-game hunting accounts for 6,926,200 of these visits.TABLE 6.—*Estimated legal harvest of big-game animals¹ in National Forests and National Grasslands, fiscal year 1964*

| State | Deer | Elk | Bear | Bighorn | Total big game ² |
|------------|--------|--------|-------|---------|-----------------------------|
| Alabama | 1,400 | ..... | ..... | ..... | 1,400 |
| Alaska | 12,000 | 80 | 600 | 30 | 14,000 |
| Arizona | 18,000 | 1,000 | 110 | 2 | 21,000 |
| Arkansas | 3,600 | ..... | ..... | ..... | 3,600 |
| California | 28,000 | ..... | 600 | ..... | 29,000 |
| Colorado | 81,000 | 11,000 | 560 | 90 | 93,000 |
| Florida | 1,400 | ..... | 25 | ..... | 1,400 |
| Georgia | 3,000 | ..... | ..... | ..... | 3,000 |
| Idaho | 45,000 | 12,000 | 1,700 | 100 | 60,000 |
| Illinois | 3,000 | ..... | ..... | ..... | 3,000 |
| Indiana | 370 | ..... | ..... | ..... | 370 |
| Kentucky | 250 | ..... | ..... | ..... | 250 |
| Louisiana | 1,400 | ..... | ..... | ..... | 1,400 |
| Maine | 95 | ..... | 5 | ..... | 100 |
| Michigan | 22,000 | ..... | 250 | ..... | 22,000 |

¹ Figures rounded in posting and totals.² Also includes antelope, moose, mountain goat, peccary, and wild boar.

TABLE 6.—*Estimated legal harvest of big-game animals¹ in National Forests and National Grasslands, fiscal year 1964*
—Continued

| State | Deer | Elk | Bear | Bighorn | Total big game ² |
|----------------|--------|--------|-------|---------|--------------------------------|
| Minnesota | 16,000 | ..... | 410 | ..... | 16,000 |
| Mississippi | 2,600 | ..... | ..... | ..... | 2,600 |
| Missouri | 4,200 | ..... | ..... | ..... | 4,200 |
| Montana | 53,000 | 9,200 | 1,200 | 130 | 66,000 |
| Nebraska | 335 | ..... | ..... | ..... | 625 |
| Nevada | 14,000 | 10 | 2 | 3 | 14,000 |
| New Hampshire | 610 | ..... | 40 | ..... | 650 |
| New Mexico | 15,000 | 780 | 140 | ..... | 16,000 |
| North Carolina | 4,100 | ..... | 170 | ..... | 4,400 |
| North Dakota | 3,200 | ..... | ..... | ..... | 4,600 |
| Ohio | 110 | ..... | ..... | ..... | 110 |
| Oklahoma | 120 | ..... | ..... | ..... | 120 |
| Oregon | 55,000 | 15,000 | 1,300 | ..... | 71,000 |
| Pennsylvania | 4,700 | ..... | 30 | ..... | 4,700 |
| South Carolina | 770 | ..... | ..... | ..... | 770 |
| South Dakota | 9,400 | ..... | ..... | ..... | 12,000 |
| Tennessee | 1,100 | ..... | 40 | ..... | 1,200 |
| Texas | 990 | ..... | ..... | ..... | 1,000 |
| Utah | 88,000 | 1,100 | 40 | ..... | 89,000 |
| Vermont | 500 | ..... | 50 | ..... | 550 |
| Virginia | 8,900 | ..... | 250 | ..... | 9,200 |
| Washington | 28,000 | 5,600 | 1,400 | ..... | 35,000 |
| West Virginia | 1,400 | ..... | 45 | ..... | 1,400 |
| Wisconsin | 4,500 | ..... | 150 | ..... | 4,700 |
| Wyoming | 36,000 | 9,400 | 320 | 75 | 50,000 |

¹ Figures rounded in posting and totals.

² Also includes antelope, moose, mountain goat, peccary, and wild boar.

TABLE 7.—*Number of family units on Forest Service campgrounds and picnic sites, June 30, 1964*

| State or Commonwealth | Number of family units | | | | State or Commonwealth | Number of family units | | | |
|--------------------------|------------------------|--------------------|------------|--------|--------------------------|------------------------|--------------------|------------|--------|
| | Tent camping | Trailer camping | Picnicking | Total | | Tent camping | Trailer camping | Picnicking | Total |
| Alabama | 73 | 2 | 165 | 240 | New Hampshire | 596 | 131 | 132 | 859 |
| Alaska | 358 | 49 | 217 | 624 | New Mexico | 815 | 46 | 800 | 1,661 |
| Arizona | 1,853 | 80 | 811 | 2,744 | New York | 9 | 0 | 3 | 12 |
| Arkansas | 419 | 0 | 420 | 839 | North Carolina | 541 | 39 | 507 | 1,087 |
| California | 12,404 | 2,499 | 2,239 | 17,142 | North Dakota | 3 | 0 | 3 | 6 |
| Colorado | 3,716 | 89 | 1,796 | 5,601 | Ohio | 86 | 0 | 82 | 168 |
| Florida | 302 | 63 | 248 | 613 | Oklahoma | 67 | 0 | 87 | 154 |
| Georgia | 464 | 0 | 300 | 764 | Oregon | 4,304 | 1,728 | 2,047 | 8,079 |
| Idaho | 2,884 | 350 | 1,215 | 4,449 | Pennsylvania | 82 | 63 | 311 | 456 |
| Illinois | 222 | 0 | 264 | 486 | Puerto Rico | 0 | 0 | 16 | 16 |
| Indiana | 31 | 0 | 117 | 148 | South Carolina | 71 | 12 | 160 | 243 |
| Kansas | 0 | 0 | 11 | 11 | South Dakota | 574 | 7 | 349 | 930 |
| Kentucky | 190 | 1 | 293 | 484 | Tennessee | 395 | 0 | 369 | 764 |
| Louisiana | 71 | 54 | 157 | 282 | Texas | 299 | 0 | 254 | 553 |
| Maine | 31 | 0 | 8 | 39 | Utah | 2,548 | 498 | 3,620 | 6,666 |
| Michigan | 1,383 | 5 | 473 | 1,861 | Vermont | 112 | 0 | 87 | 199 |
| Minnesota | 1,317 | 0 | 267 | 1,584 | Virginia | 353 | 0 | 589 | 942 |
| Mississippi | 85 | 21 | 195 | 301 | Washington | 3,767 | 355 | 1,339 | 5,461 |
| Missouri | 137 | 0 | 302 | 439 | West Virginia | 522 | 9 | 832 | 1,363 |
| Montana | 1,646 | 339 | 1,037 | 3,022 | Wisconsin | 668 | 10 | 281 | 959 |
| Nebraska | 44 | 0 | 42 | 86 | Wyoming | 1,396 | 244 | 625 | 2,265 |
| Nevada | 307 | 49 | 428 | 784 | Total | 45,145 | 6,743 | 23,498 | 75,386 |

TABLE 8.—*Developed recreation sites in National Forests and National Grasslands, June 30, 1964*

| Region and National Forest | States where Forest is located | Camp-grounds | Picnic sites | Organ-ization camps | Lodge or resort sites | Other public service sites | Recreation residence sites | Swim-ming sites | Boating sites | Winter sports sites | Obser-vation sites | Total sites |
|----------------------------------|--------------------------------|--------------|--------------|---------------------|-----------------------|----------------------------|----------------------------|-----------------|---------------|---------------------|--------------------|-------------|
| Northern (Region 1) | | | | | | | | | | | | |
| Beaverhead | Mont. | 30 | 9 | 2 | 4 | 1 | 16 | 0 | 5 | 1 | 1 | 69 |
| Bitterroot | Mont., Idaho | 17 | 8 | 1 | 0 | 2 | 3 | 1 | 3 | 1 | 1 | 36 |
| Clearwater | Idaho | 21 | 3 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 28 |
| Coeur d'Alene | Idaho | 12 | 5 | 0 | 0 | 0 | 10 | 0 | 1 | 1 | 1 | 30 |
| Colville | Washington | 19 | 6 | 0 | 1 | 0 | 7 | 5 | 8 | 1 | 1 | 48 |
| Custer | Mont., S. Dak., N. Dak. | 28 | 11 | 4 | 2 | 0 | 14 | 0 | 0 | 1 | 5 | 65 |
| Deerlodge | Mont. | 24 | 7 | 3 | 0 | 1 | 45 | 0 | 2 | 1 | 2 | 85 |
| Flathead | Mont. | 36 | 6 | 0 | 5 | 0 | 12 | 3 | 9 | 1 | 0 | 72 |
| Gallatin | Mont. | 48 | 12 | 5 | 8 | 3 | 80 | 0 | 3 | 2 | 12 | 173 |
| Helena | Mont. | 8 | 5 | 2 | 0 | 10 | 63 | 1 | 2 | 1 | 1 | 93 |
| Kaniksu | Idaho, Mont., Wash | 22 | 10 | 0 | 2 | 0 | 28 | 2 | 5 | 3 | 0 | 72 |
| Kootenai | Idaho, Mont. | 18 | 6 | 0 | 0 | 0 | 3 | 1 | 8 | 1 | 0 | 37 |
| Lewis and Clark | Mont. | 16 | 0 | 3 | 10 | 0 | 68 | 0 | 2 | 1 | 0 | 100 |
| Lolo | Idaho, Mont. | 25 | 7 | 1 | 3 | 0 | 7 | 2 | 3 | 1 | 0 | 49 |
| Nezperce | Idaho | 18 | 4 | 2 | 1 | 0 | 13 | 0 | 1 | 0 | 3 | 42 |
| St. Joe | Idaho | 18 | 2 | 0 | 1 | 0 | 2 | 1 | 0 | 1 | 2 | 27 |
| Total | | 360 | 101 | 23 | 38 | 16 | 373 | 16 | 52 | 17 | 30 | 1,026 |
| Rocky Mountain (Region 2) | | | | | | | | | | | | |
| Arapaho | Colo. | 30 | 32 | 1 | 5 | 1 | 38 | 0 | 0 | 8 | 4 | 119 |
| Bighorn | Wyo. | 41 | 14 | 5 | 11 | 0 | 95 | 0 | 1 | 2 | 7 | 176 |
| Black Hills | S. Dak., Wyo. | 27 | 35 | 9 | 3 | 2 | 139 | 3 | 5 | 1 | 1 | 225 |
| Grand Mesa- Uncompahgre | Colo. | 22 | 10 | 2 | 3 | 1 | 4 | 0 | 1 | 1 | 1 | 45 |
| Gunnison | Colo. | 31 | 4 | 1 | 2 | 0 | 9 | 0 | 1 | 1 | 1 | 50 |
| Medicine Bow | Wyo. | 29 | 11 | 3 | 5 | 0 | 27 | 0 | 0 | 3 | 2 | 80 |
| Nebraska | Nebr. | 3 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 9 |
| Pike | Colo. | 30 | 43 | 8 | 2 | 2 | 70 | 0 | 1 | 2 | 7 | 165 |
| Rio Grande | Colo. | 26 | 7 | 2 | 2 | 0 | 17 | 0 | 0 | 1 | 0 | 55 |
| Roosevelt | Colo. | 25 | 26 | 5 | 1 | 0 | 21 | 0 | 1 | 1 | 0 | 80 |
| Routt | Colo. | 20 | 8 | 0 | 2 | 0 | 6 | 0 | 1 | 0 | 2 | 39 |
| San Juan | Colo. | 45 | 7 | 0 | 2 | 0 | 5 | 0 | 3 | 1 | 1 | 64 |
| San Isabel | Colo., Kans. | 15 | 16 | 5 | 0 | 1 | 16 | 0 | 0 | 2 | 3 | 58 |
| Shoshone | Wyo. | 33 | 6 | 3 | 17 | 2 | 26 | 0 | 0 | 2 | 2 | 91 |
| White River | Colo. | 36 | 7 | 0 | 5 | 0 | 26 | 0 | 0 | 5 | 1 | 80 |
| Total | | 413 | 229 | 44 | 60 | 9 | 499 | 4 | 14 | 30 | 34 | 1,336 |
| Southwestern (Region 3) | | | | | | | | | | | | |
| Apache | Ariz., N. Mex. | 29 | 4 | 1 | 4 | 3 | 8 | 0 | 1 | 0 | 1 | 51 |
| Carson | N. Mex. | 48 | 11 | 3 | 0 | 10 | 14 | 0 | 0 | 3 | 1 | 90 |
| Cibola | N. Mex. | 18 | 13 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | 1 | 37 |
| Coconino | Ariz. | 22 | 5 | 7 | 3 | 0 | 16 | 0 | 4 | 1 | 1 | 59 |
| Coronado | Ariz., N. Mex. | 29 | 21 | 8 | 2 | 1 | 16 | 0 | 0 | 1 | 3 | 81 |
| Gila | N. Mex. | 12 | 2 | 2 | 1 | 1 | 3 | 0 | 0 | 0 | 4 | 25 |
| Kaibab | Ariz. | 6 | 2 | 0 | 7 | 1 | 4 | 0 | 0 | 1 | 1 | 22 |
| Lincoln | N. Mex. | 8 | 6 | 4 | 0 | 1 | 7 | 0 | 0 | 1 | 0 | 27 |
| Prescott | Ariz. | 9 | 9 | 11 | 5 | 2 | 29 | 0 | 1 | 0 | 15 | 81 |

TABLE 8.—*Developed recreation sites in National Forests and National Grasslands, June 30, 1964—Continued*

| Region and National Forest | States where Forest is located | Camp-grounds | Picnic sites | Organization camps | Lodge or resort sites | Other public service sites | Recreation residence sites | Swimming sites | Boating sites | Winter sports sites | Observation sites | Total sites |
|---------------------------------|--------------------------------|--------------|--------------|--------------------|-----------------------|----------------------------|----------------------------|----------------|---------------|---------------------|-------------------|-------------|
| Santa Fe | N. Mex. | 26 | 20 | 2 | 2 | 0 | 8 | 0 | 0 | 1 | 0 | 59 |
| Sitgreaves | Ariz. | 4 | 1 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 11 |
| Tonto | Ariz. | 24 | 18 | 2 | 2 | 7 | 20 | 1 | 5 | 0 | 1 | 80 |
| Panhandle National Grasslands | Okla., Texas., N. Mex. | 2 | 14 | 1 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 25 |
| Total | | 237 | 126 | 43 | 29 | 29 | 131 | 1 | 15 | 9 | 28 | 648 |
| Intermountain (Region 4) | | | | | | | | | | | | |
| Ashley | Utah | 34 | 4 | 1 | 5 | 0 | 5 | 0 | 3 | 1 | 2 | 56 |
| Boise | Idaho | 115 | 2 | 5 | 8 | 0 | 19 | 1 | 5 | 1 | 0 | 156 |
| Bridger | Wyo. | 21 | 3 | 2 | 6 | 0 | 7 | 1 | 5 | 1 | 0 | 46 |
| Cache | Idaho, Utah | 22 | 37 | 10 | 2 | 2 | 15 | 0 | 3 | 2 | 2 | 95 |
| Caribou | Idaho, Utah, Wyo. | 15 | 10 | 4 | 0 | 0 | 4 | 1 | 3 | 2 | 0 | 39 |
| Challis | Idaho | 26 | 2 | 1 | 2 | 0 | 6 | 0 | 1 | 0 | 1 | 39 |
| Dixie | Utah | 14 | 4 | 1 | 4 | 0 | 2 | 0 | 7 | 1 | 0 | 33 |
| Fishlake | Utah | 15 | 11 | 2 | 4 | 0 | 8 | 0 | 2 | 1 | 0 | 43 |
| Humboldt | Nev. | 22 | 8 | 3 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 38 |
| Manti-LaSal | Colo., Utah | 7 | 13 | 1 | 2 | 0 | 8 | 0 | 0 | 2 | 0 | 33 |
| Payette | Idaho | 29 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 35 |
| Salmon | Idaho | 18 | 3 | 1 | 2 | 0 | 5 | 0 | 3 | 1 | 1 | 34 |
| Sawtooth | Idaho, Utah | 49 | 12 | 9 | 4 | 0 | 19 | 3 | 2 | 6 | 4 | 108 |
| Targhee | Idaho, Wyo. | 22 | 3 | 10 | 3 | 0 | 8 | 0 | 6 | 2 | 1 | 55 |
| Teton | Wyo. | 11 | 2 | 1 | 4 | 0 | 3 | 2 | 0 | 2 | 2 | 27 |
| Toiyabe | Calif., Nev. | 26 | 4 | 3 | 5 | 4 | 8 | 0 | 0 | 2 | 1 | 53 |
| Uinta | Utah | 31 | 22 | 3 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 66 |
| Wasatch | Utah, Wyo. | 43 | 21 | 7 | 5 | 8 | 10 | 1 | 2 | 5 | 16 | 118 |
| Total | | 520 | 162 | 64 | 56 | 15 | 142 | 9 | 43 | 33 | 30 | 1,074 |
| California (Region 5) | | | | | | | | | | | | |
| Angeles | Calif. | 97 | 27 | 40 | 10 | 0 | 30 | 3 | 2 | 12 | 3 | 224 |
| Cleveland | Calif. | 24 | 7 | 3 | 3 | 1 | 17 | 0 | 0 | 0 | 1 | 56 |
| Eldorado | Calif., Nev. | 35 | 11 | 17 | 13 | 1 | 63 | 2 | 1 | 5 | 1 | 149 |
| Inyo | Calif., Nev. | 87 | 13 | 4 | 28 | 39 | 33 | 2 | 9 | 3 | 2 | 220 |
| Klamath | Calif., Oreg. | 26 | 3 | 0 | 2 | 2 | 44 | 0 | 0 | 0 | 1 | 78 |
| Lassen | Calif. | 52 | 7 | 4 | 4 | 1 | 10 | 1 | 3 | 4 | 1 | 87 |
| Los Padres | Calif. | 295 | 20 | 12 | 0 | 1 | 14 | 0 | 0 | 2 | 0 | 344 |
| Mendocino | Calif. | 49 | 3 | 3 | 1 | 0 | 9 | 0 | 0 | 0 | 2 | 67 |
| Modoc | Calif. | 19 | 5 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 0 | 31 |
| Six Rivers | Calif. | 18 | 1 | 3 | 2 | 3 | 34 | 0 | 0 | 0 | 0 | 61 |
| Plumas | Calif. | 32 | 4 | 5 | 12 | 0 | 34 | 0 | 0 | 1 | 3 | 91 |
| San Bernardino | Calif. | 62 | 13 | 37 | 8 | 4 | 47 | 1 | 0 | 5 | 1 | 178 |
| Sequoia | Calif. | 60 | 5 | 13 | 8 | 16 | 32 | 1 | 0 | 2 | 0 | 137 |
| Shasta-Trinity | Calif. | 86 | 7 | 8 | 6 | 2 | 23 | 0 | 23 | 1 | 0 | 156 |
| Sierra | Calif. | 89 | 17 | 21 | 16 | 10 | 26 | 9 | 11 | 1 | 1 | 201 |
| Stanislaus | Calif. | 49 | 8 | 17 | 7 | 3 | 27 | 2 | 1 | 1 | 2 | 117 |
| Tahoe | Calif. | 52 | 5 | 19 | 7 | 1 | 63 | 2 | 2 | 7 | 0 | 158 |
| Total | | 1,132 | 156 | 207 | 127 | 84 | 509 | 25 | 52 | 45 | 18 | 2,355 |

TABLE 8.—Developed recreation sites in National Forests and National Grasslands, June 30, 1964—Continued

| Region and National Forest | States where Forest is located | Camp-grounds | Picnic sites | Organ-ization camps | Lodge or resort sites | Other public service sites | Recreation residence sites | Swim-ming sites | Boating sites | Winter sports sites | Obser-vation sites | Total sites |
|------------------------------------|--------------------------------|--------------|--------------|---------------------|-----------------------|----------------------------|----------------------------|-----------------|---------------|---------------------|--------------------|-------------|
| Pacific Northwest (Region 6) | | | | | | | | | | | | |
| Deschutes | Oreg. | 106 | 11 | 8 | 9 | 7 | 22 | 5 | 27 | 1 | 5 | 201 |
| Fremont | Oreg. | 27 | 2 | 1 | 0 | 0 | 1 | 0 | 3 | 1 | 1 | 36 |
| Gifford Pinchot | Wash. | 73 | 4 | 9 | 1 | 0 | 2 | 0 | 3 | 0 | 1 | 93 |
| Malheur | Oreg. | 36 | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 2 | 3 | 47 |
| Mt. Baker | Wash. | 98 | 4 | 5 | 4 | 0 | 3 | 1 | 1 | 2 | 2 | 120 |
| Mt. Hood | Oreg. | 94 | 20 | 14 | 6 | 0 | 9 | 0 | 5 | 6 | 4 | 158 |
| Ochoco | Oreg. | 24 | 0 | 2 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 29 |
| Okanogan | Wash. | 56 | 2 | 5 | 0 | 0 | 6 | 2 | 8 | 1 | 3 | 83 |
| Olympic | Wash. | 18 | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 1 | 24 |
| Rogue River | Oreg., Calif. | 44 | 6 | 3 | 2 | 1 | 6 | 1 | 1 | 2 | 0 | 66 |
| Siskiyou | Oreg., Calif. | 22 | 3 | 1 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 31 |
| Siuslaw | Oreg. | 26 | 5 | 2 | 2 | 0 | 0 | 2 | 6 | 0 | 9 | 52 |
| Snoqualmie | Wash. | 90 | 6 | 22 | 8 | 4 | 36 | 1 | 4 | 3 | 5 | 179 |
| Umatilla | Oreg., Wash. | 39 | 11 | 2 | 1 | 0 | 28 | 0 | 0 | 3 | 0 | 84 |
| Umpqua | Oreg. | 25 | 17 | 3 | 3 | 2 | 3 | 0 | 3 | 1 | 3 | 60 |
| Wallowa-Whitman | Oreg. | 64 | 4 | 1 | 3 | 0 | 10 | 0 | 3 | 2 | 2 | 89 |
| Wenatchee | Wash. | 137 | 6 | 13 | 6 | 0 | 27 | 0 | 3 | 4 | 0 | 196 |
| Willamette | Oreg. | 89 | 4 | 12 | 3 | 2 | 13 | 1 | 12 | 2 | 5 | 143 |
| Winema | Oreg. | 22 | 3 | 4 | 2 | 3 | 3 | 1 | 6 | 1 | 0 | 45 |
| Total | | 1,090 | 109 | 108 | 51 | 20 | 176 | 15 | 92 | 31 | 44 | 1,736 |
| Eastern (Region 7) | | | | | | | | | | | | |
| Allegheny | Pa. | 6 | 18 | 5 | 0 | 0 | 131 | 2 | 1 | 0 | 2 | 165 |
| Cumberland | Ky. | 34 | 42 | 2 | 0 | 2 | 1 | 0 | 1 | 0 | 7 | 89 |
| George Washington | Va., W. Va. | 20 | 19 | 5 | 2 | 0 | 8 | 3 | 0 | 0 | 3 | 60 |
| Green Mountain | Vt., N.Y. | 22 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 6 | 38 |
| Jefferson | Va. | 58 | 51 | 2 | 0 | 0 | 1 | 2 | 1 | 0 | 2 | 117 |
| Monongahela | W. Va. | 65 | 16 | 4 | 0 | 0 | 0 | 4 | 3 | 0 | 8 | 100 |
| White Mountain | Maine, N.H. | 66 | 13 | 2 | 6 | 0 | 0 | 1 | 1 | 10 | 20 | 119 |
| Total | | 271 | 164 | 20 | 8 | 2 | 141 | 13 | 7 | 14 | 48 | 688 |
| Southern (Region 8) | | | | | | | | | | | | |
| National Forests in Alabama | Ala. | 7 | 18 | 1 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 36 |
| National Forests in Georgia | Ga. | 26 | 29 | 2 | 1 | 0 | 1 | 7 | 6 | 0 | 6 | 78 |
| Cherokee | Tenn. | 29 | 31 | 6 | 2 | 0 | 6 | 12 | 5 | 0 | 1 | 92 |
| National Forests in Florida | Fla. | 23 | 23 | 10 | 1 | 0 | 16 | 11 | 19 | 0 | 0 | 103 |
| Kisatchie | La. | 10 | 11 | 2 | 2 | 0 | 3 | 6 | 4 | 0 | 1 | 39 |
| National Forests in Mississippi | Miss. | 12 | 25 | 5 | 1 | 0 | 0 | 5 | 11 | 0 | 0 | 59 |
| Ouachita | Ark., Okla. | 19 | 25 | 1 | 0 | 0 | 0 | 13 | 3 | 0 | 20 | 81 |
| Ozark-St. Francis | Ark. | 20 | 21 | 2 | 4 | 0 | 2 | 6 | 6 | 0 | 1 | 62 |
| National Forests in North Carolina | N.C. | 28 | 30 | 2 | 0 | 2 | 4 | 10 | 12 | 0 | 6 | 94 |

TABLE 8.—*Developed recreation sites in National Forests and National Grasslands, June 30, 1964—Continued*

| Region and National Forest | States where Forest is located | Camp- grounds | Picnic sites | Organ- ization camps | Lodge or resort sites | Other public service sites | Recreation residence sites | Swim- ming sites | Boating sites | Winter sports sites | Observ- ation sites | Total sites |
|---------------------------------------|-----------------------------------|------------------|-----------------|----------------------------|-----------------------------|-------------------------------------|----------------------------------|------------------------|------------------|---------------------------|---------------------------|----------------|
| National Forests in South Carolina | S.C. | 8 | 30 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 44 |
| National Forests in Texas | Texas | 13 | 11 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 30 |
| Total | | 195 | 254 | 31 | 11 | 2 | 32 | 81 | 77 | 0 | 35 | 718 |
| North Central (Region 9) | | | | | | | | | | | | |
| Chequamegon | Wis. | 16 | 14 | 2 | 0 | 0 | 5 | 9 | 19 | 2 | 0 | 67 |
| Chippewa | Minn., N.Dak. | 22 | 15 | 5 | 11 | 0 | 28 | 11 | 26 | 1 | 1 | 120 |
| Clark and Mark Twain | Mo. | 12 | 26 | 1 | 0 | 0 | 0 | 6 | 3 | 0 | 0 | 48 |
| Huron-Manistee | Mich. | 29 | 11 | 5 | 0 | 5 | 18 | 5 | 9 | 3 | 0 | 85 |
| Nicolet | Wis. | 22 | 7 | 1 | 0 | 0 | 4 | 11 | 25 | 1 | 0 | 71 |
| Ottawa | Mich. | 24 | 13 | 1 | 0 | 2 | 4 | 9 | 30 | 1 | 2 | 86 |
| Shawnee | Ill., Mo. | 15 | 24 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 9 | 52 |
| Superior | Minn. | 390 | 13 | 2 | 11 | 13 | 42 | 11 | 35 | 2 | 0 | 519 |
| Hiawatha | Mich. | 20 | 8 | 2 | 1 | 2 | 16 | 7 | 8 | 2 | 0 | 66 |
| Wayne-Hoosier | Ohio, Ind. | 5 | 22 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 31 |
| Total | | 555 | 153 | 19 | 23 | 22 | 117 | 73 | 158 | 12 | 13 | 1,145 |
| Alaska (Region 10) | | | | | | | | | | | | |
| North Tongass | Alaska | 63 | 10 | 3 | 3 | 0 | 27 | 0 | 1 | 3 | 7 | 117 |
| Chugach | Alaska | 22 | 5 | 6 | 5 | 0 | 51 | 0 | 3 | 2 | 1 | 95 |
| South Tongass | Alaska | 50 | 10 | 3 | 0 | 0 | 13 | 1 | 2 | 0 | 1 | 80 |
| Total | | 135 | 25 | 12 | 8 | 0 | 91 | 1 | 6 | 5 | 9 | 292 |
| Tropical | | | | | | | | | | | | |
| Caribbean | Puerto Rico | 0 | 1 | 2 | 1 | 0 | 4 | 1 | 0 | 0 | 3 | 12 |

TABLE 9.—*The National Forest wilderness system, 1930-64*

| Calendar year | Primitive areas | | Canoe areas | | Wilderness areas | | Wild areas | | All areas | |
|-------------------|-----------------|------------|----------------|---------|------------------|-----------|------------|-----------|-----------|------------|
| | Number | Acreage | Number | Acreage | Number | Acreage | Number | Acreage | Number | Acreage |
| 1930 | 3 | 360,444 | .. | ..... | .. | ..... | .. | ..... | 3 | 360,444 |
| 1931 | 29 | 4,412,773 | .. | ..... | .. | ..... | .. | ..... | 29 | 4,412,773 |
| 1932 | 51 | 7,178,759 | .. | ..... | .. | ..... | .. | ..... | 51 | 7,178,759 |
| 1933 | 63 | 8,877,461 | .. | ..... | .. | ..... | .. | ..... | 63 | 8,877,461 |
| 1934 | 64 | 9,442,712 | .. | ..... | .. | ..... | .. | ..... | 64 | 9,442,712 |
| 1935 | 66 | 10,228,314 | .. | ..... | .. | ..... | .. | ..... | 66 | 10,228,314 |
| 1936 | 67 | 12,236,359 | 1 | 640,000 | .. | ..... | .. | ..... | 68 | 12,876,359 |
| 1937 | 72 | 13,419,709 | 1 | 640,000 | .. | ..... | .. | ..... | 73 | 14,059,709 |
| 1938 | 72 | 13,267,783 | 1 | 640,000 | .. | ..... | .. | ..... | 73 | 13,907,783 |
| 1939 | 73 | 13,435,503 | 2 | 799,911 | .. | ..... | .. | ..... | 75 | 14,235,414 |
| 1940 | 61 | 11,755,149 | 2 | 799,911 | 4 | 1,428,070 | 6 | 234,043 | 73 | 14,217,173 |
| 1941 | 61 | 11,304,557 | 2 | 799,911 | 4 | 1,428,070 | 6 | 234,043 | 73 | 13,766,581 |
| 1942 | 61 | 11,301,317 | 2 | 799,911 | 4 | 1,428,070 | 8 | 308,214 | 75 | 13,837,512 |
| 1943 | 61 | 11,301,317 | 2 | 799,911 | 4 | 1,428,070 | 9 | 326,923 | 76 | 13,856,221 |
| 1944 | 60 | 11,266,723 | 2 | 799,911 | 4 | 1,428,070 | 9 | 326,923 | 75 | 13,821,627 |
| 1945 | 60 | 11,266,723 | 2 | 799,911 | 4 | 1,428,070 | 9 | 326,923 | 75 | 13,821,627 |
| 1946 | 59 | 11,233,939 | 2 | 799,911 | 4 | 1,428,070 | 10 | 405,453 | 75 | 13,867,373 |
| 1947 | 59 | 11,233,939 | 2 | 799,911 | 4 | 1,428,070 | 10 | 405,453 | 75 | 13,867,373 |
| 1948 | 59 | 11,233,022 | 3 | 814,456 | 4 | 1,428,070 | 11 | 434,015 | 77 | 13,909,563 |
| 1949 | 58 | 11,193,001 | 3 | 814,456 | 4 | 1,428,070 | 12 | 487,415 | 77 | 13,922,942 |
| 1950 | 58 | 11,193,001 | 3 | 814,456 | 4 | 1,420,390 | 12 | 487,415 | 77 | 13,915,262 |
| 1951 | 55 | 10,167,299 | 3 | 814,456 | 6 | 2,285,642 | 14 | 515,665 | 78 | 13,783,062 |
| 1952 | 55 | 10,167,299 | 3 | 814,456 | 6 | 2,285,642 | 14 | 515,665 | 78 | 13,783,062 |
| 1953 | 53 | 9,476,203 | 3 | 814,456 | 8 | 2,936,223 | 15 | 541,244 | 79 | 13,768,126 |
| 1954 | 53 | 9,476,203 | 3 | 814,456 | 8 | 2,936,223 | 15 | 541,244 | 79 | 13,768,126 |
| 1955 | 50 | 8,758,997 | 3 | 814,456 | 10 | 3,664,683 | 16 | 556,939 | 79 | 13,795,075 |
| 1956 | 46 | 8,542,208 | 3 | 814,456 | 11 | 3,771,838 | 19 | 662,587 | 79 | 13,791,089 |
| 1957 | 42 | 8,195,540 | 3 | 814,456 | 12 | 3,968,546 | 24 | 877,240 | 81 | 13,855,782 |
| 1958 | 42 | 8,195,540 | ¹ 1 | 814,456 | 12 | 3,968,546 | 25 | 941,907 | 80 | 13,920,449 |
| 1959 | 42 | 8,253,189 | 1 | 814,456 | 12 | 3,968,876 | 26 | 948,551 | 81 | 13,985,072 |
| 1960 | 40 | 7,907,417 | 1 | 886,673 | 14 | 4,888,173 | 28 | 979,153 | 83 | 14,661,416 |
| 1961 | 38 | 7,852,959 | 1 | 886,673 | 14 | 4,888,173 | 30 | 1,047,553 | 83 | 14,675,358 |
| 1962 | 37 | 7,751,019 | 1 | 886,673 | 15 | 5,045,976 | 30 | 1,047,553 | 83 | 14,731,221 |
| 1963 | 36 | 6,017,409 | 1 | 886,673 | 17 | 6,395,036 | 32 | 1,160,075 | 86 | 14,459,193 |
| 1964 ² | 34 | 5,477,740 | .. | ..... | 54 | 9,139,721 | .. | ..... | 88 | 14,617,461 |

¹ In 1958 the three Superior Roadless Areas were collectively renamed the Boundary Waters Canoe Area. Acreage includes net National Forest land and all water.

² On Sept. 3, 1964, when the Wilderness Act became law, the Boundary Waters Canoe Area, Wilderness Areas, and Wild Areas were all made units of the National Wilderness Preservation System and classified as wilderness.

TABLE 10.—*National Forest units of the National Wilderness Preservation System, January 1, 1965*

| ARIZONA—422,990 acres | | | | | |
|-----------------------|-----------------|---------------------|--------------|---------|---|
| Name of wilderness | National Forest | Forest headquarters | Area (acres) | | Special features |
| | | | Gross | Net | |
| Chiricahua | Coronado | Tucson | 18,000 | 18,000 | On the crest of Chiricahua Mountain Range with precipitous scenic canyons radiating from the summit. Among the game species is the rare Chiricahua squirrel, found only in this vicinity. |
| Galiuro | Coronado | Tucson | 55,000 | 55,000 | Knifelike mountains jutting out of the Arizona plain. Extremely steep slopes limit travel to constructed trails. For experienced travelers there is good hunting. |
| Mazatzal | Tonto | Phoenix | 205,346 | 205,000 | Precipitous topography containing many geological formations. Wildlife, but no fishing. |
| Sierra Ancha | Tonto | Phoenix | 20,850 | 20,850 | Precipitous mountains. Prehistoric and Pueblo Indian cliff dwellings. Varied vegetation and wildlife. |

TABLE 10.—*National Forest units of the National Wilderness Preservation System, January 1, 1965—Continued*

| ARIZONA—Continued | | | | | |
|----------------------------|-----------------------------|------------------------|--------------|---------|---|
| Name of wilderness | National Forest | Forest headquarters | Area (acres) | | Special features |
| | | | Gross | Net | |
| Superstition | Tonto | Phoenix | 124,140 | 124,140 | Extremely rough with occasional prominent peaks. Replete with mining folklore of the Southwest, particularly from the prospecting days. |
| CALIFORNIA—1,256,884 acres | | | | | |
| Caribou | Lassen | Susanville | 19,080 | 19,080 | A wild mountainous area of volcanic origin near Mt. Lassen in Northern California. Attractive small lakes with good fishing and some wildlife. |
| Cucamonga | San Bernardino | San Bernardino | 9,022 | 9,022 | Gentle to rugged topography reaching maximum altitude of 8,911 feet. Habitat of deer and mountain sheep. Challenging to hikers, with rewards of exceptional views. |
| Dome Land | Sequoia | Porterville | 62,561 | 62,121 | Picturesque domes and spires of bare rock. Elevations from 3000 to 9529 feet. Traversed by the precipitous South Fork of Kern River Canyon. Virgin forests cover some 6,000 acres. |
| Hoover | Inyo Toiyabe | Bishop Reno, Nevada | 9,000 | 9,000 | Rugged canyons & jagged peaks approaching 13,000 feet. Mountain lakes & cascading streams. Meadows carpeted with spring flowers. Abundant wildlife, fishing, and remnants of 5 glaciers. |
| | | | 33,800 | 33,800 | |
| | | | 42,800 | 42,800 | |
| John Muir | Inyo Sierra | Bishop Fresno | 230,217 | 228,932 | Spectacular Sierra Crest country with elevations up to nearly 14,500 feet at Mount Whitney. Hundreds of lakes and streams, many with native golden trout. John Muir Trail traverses much of area. Wildlife, vegetation, and geologic features in abundance. |
| | | | 274,046 | 274,046 | |
| | | | 504,263 | 502,978 | |
| Marble Mountain | Klamath | Yreka | 214,543 | 213,283 | Outstanding mountain scenery of two types: the Marble Mountains of white and gray marble, and high granitic peaks to the south. A wide variety of tree species. Both stream and lake fishing. |
| Minarets | Inyo Sierra | Bishop Fresno | 61,508 | 61,433 | Rugged peaks and spires of unusual grandeur. One of finest climbing regions in the Sierra Nevada. Many streams, nearly 400 lakes, and about 25 remnants of glaciers. |
| | | | 48,051 | 48,051 | |
| | | | 109,559 | 109,484 | |
| Mokelumne | Eldorado Stanislaus | Placerville Sonora | 41,560 | 41,560 | High granite crest zone. Rugged and sparsely timbered. Abundant wildlife. Lake and stream fishing. |
| | | | 8,840 | 8,840 | |
| | | | 50,400 | 50,400 | |
| San Geronio | San Bernardino | San Bernardino | 34,718 | 33,898 | San Geronio Peak, 11,485 feet; desert to alpine scenery and vegetation. |
| San Jacinto | San Bernardino | San Bernardino | 21,955 | 20,565 | Mountains, meadows, and flats atop precipitous cliffs rising high above the Palm Springs desert country. |
| South Warner | Modoc | Alturas | 69,547 | 68,507 | A ridge 15 miles long, most of it over 9,000 feet in elevation. Numerous peaks, small meadows, and lakes. Summer range for mule deer. |
| Thousand Lakes | Lassen | Susanville | 16,335 | 15,695 | Peaks of volcanic origin and lava flows. Several timber-bound fishing lakes; scenic grandeur. |
| Yolla Bolly- Middle Eel | Mendocino Shasta-Trinity | Willows Redding | 73,876 | 72,916 | Variety of rugged scenery. Abundant wildlife. Good stream fishing in early part of season. |
| | | | 37,215 | 36,135 | |
| | | | 111,091 | 109,051 | |

TABLE 10.—*National Forest units of the National Wilderness Preservation System, January 1, 1965—Continued*

| COLORADO—274,859 acres | | | | | |
|--------------------------------|---------------------------------------|---|---|---|--|
| Name of wilderness | National Forest | Forest headquarters | Area (acres) | | Special features |
| | | | Gross | Net | |
| La Garita | Gunnison Rio Grande | Gunnison Monte Vista | 26,300 22,700 <u>49,000</u> | 26,300 22,700 <u>49,000</u> | Along the Continental Divide with peaks exceeding 14,000 feet. Abundance of wildlife in an alpine and subalpine setting. Fishing in all streams and lakes. |
| Maroon Bells-Snowmass | White River | Glenwood Springs | 66,280 | 66,100 | Includes Snowmass Mountain, Maroon Bells, and Pyramid Peak, all over 14,000 feet high. Mountain sheep summer and winter at Conundrum Hot Springs. Excellent fishing. |
| Mount Zirkel | Routt | Steamboat Springs | 72,180 | 72,180 | Rough, scenic country astride the Continental Divide, Mt. Zirkel, 12,220 feet in elevation, is the highest peak. Many lakes and streams with good fishing. An elk summer range. |
| Rawah | Roosevelt | Fort Collins | 26,797 | 25,579 | In Medicine Bow Range. Includes a small glacier and numerous glacial lakes. Part of area is exceptionally rugged. Good fishing. |
| West Elk | Gunnison | Gunnison | 62,000 | 62,000 | Embraces parts of several high mountain ranges. Open park ranges, lakes and rushing streams. Summer range of many deer and elk. |
| IDAHO—987,910 acres | | | | | |
| Selway-Bitterroot ¹ | Bitterroot Clearwater Nezperce | Hamilton, Mont. Orofino Grangeville | 165,168 265,580 558,431 <u>989,179</u> | 164,946 265,580 557,384 <u>987,910</u> | Mountainous wooded area lying mostly west of the Bitterroot Range. Wildlife and vegetation of great variety. |
| MINNESOTA—886,673 acres | | | | | |
| Boundary Waters Canoe Area | Superior | Duluth | 1,034,852 | 886,673 | The finest canoe country in America with hundreds of lakes ideal for canoeing. Excellent fishing in more remote regions. Largest wilderness east of the Rockies. |
| MONTANA—1,482,567 acres | | | | | |
| Anaconda-Pintlar | Beaverhead Deerlodge Bitterroot | Dillon Butte Hamilton | 72,526 45,398 41,162 <u>159,086</u> | 72,526 44,115 41,162 <u>157,803</u> | A scenic chain of high, barren, precipitous peaks along the Continental Divide. Forested slopes flank the crest. Many lakes and streams. |
| Bob Marshall | Flathead Lewis & Clark | Kalispell Great Falls | 710,000 240,000 <u>950,000</u> | 710,000 240,000 <u>950,000</u> | A spectacular mountain area with a wide variety of flora and fauna. Outstanding elk hunting and cut-throat trout fishing. Of great geologic interest, especially the "Chinese Wall." |
| Cabinet Mountain | Kaniksu Kootenai | Sandpoint Libby | 39,663 54,609 <u>94,272</u> | 39,663 54,609 <u>94,272</u> | A lofty, peak-studded area of scenic grandeur. Big game and wild flowers in abundance. |
| Gates of the Mountains | Helena | Helena | 28,562 | 28,562 | Spectacular limestone cliffs and other geologic formations. Of interest relating to Lewis and Clark expedition. |
| Selway-Bitterroot ² | Bitterroot Lolo | Hamilton Missoula | 244,470 10,010 <u>254,480</u> | 244,150 7,780 <u>251,930</u> | Mountainous wooded area lying mostly west of the Bitterroot Range. Wildlife and vegetation of great variety. |

¹ Area is also in Montana.² Area is also in Idaho.

TABLE 10.—*National Forest units of the National Wilderness Preservation System, January 1, 1965—Continued*

| NEVADA—64,667 acres | | | | | |
|-----------------------------|-------------------------|---------------------|--------------------------------|---------|---|
| Name of wilderness | National Forest | Forest headquarters | Area (acres) Gross Net | | Special features |
| Jarbridge | Humboldt | Elko | 64,827 | 64,667 | Rugged mountainous terrain with 8 peaks over 10,000 feet. Deer plentiful, small game and birds numerous. Good fishing in streams and one lake. One of the most scenic and remote spots in Nevada. |
| NEW HAMPSHIRE—5,400 acres | | | | | |
| Great Gulf | White Mountain | Laconia | 5,400 | 5,400 | A rough, rugged mountain basin on the slopes of Mt. Washington. Accessible by trail. Elevations from 1,700 to 5,800 feet. |
| NEW MEXICO—678,661 acres | | | | | |
| Gila ³ | Gila | Silver City | 438,626 | 638,360 | Topography rough to precipitous. Many deep box canyons. Good hunting and trout fishing. |
| Pecos | Carson Santa Fe | Taos | 25,000 | 25,000 | High back country with trout lakes and streams; elk and deer hunting. |
| | | Santa Fe | 140,000 | 140,000 | |
| | | | 165,000 | 165,000 | |
| San Pedro Parks | Santa Fe | Santa Fe | 41,132 | 41,132 | A high mountain plateau. Dense stands of spruce and open meadows with small trout streams. Deer, turkey, and grouse hunting. |
| Wheeler Peak | Carson | Taos | 6,051 | 6,051 | Outstanding scenery. Includes Wheeler Peak, elevation 13,160 feet—highest in New Mexico. |
| White Mountain | Lincoln | Alamogordo | 28,230 | 28,118 | A variety of mountain scenery and forest cover types. Elevation 6,000 to 11,000 feet. |
| NORTH CAROLINA—21,055 acres | | | | | |
| Linville Gorge | Pisgah | Asheville | 7,655 | 7,655 | Deep, rough gorge with cascades, virgin timber, and flowering shrubs. Elevation ranges from 1,000 to 4,000 feet. |
| Shining Rock | Pisgah | | 13,400 | 13,400 | Unique vegetation cover surmounted by Shining Rock Mountain of white quartz. Many waterfalls and springs. Outstanding deer and bear population. Good stream fishing. |
| OREGON—662,847 acres | | | | | |
| Diamond Peak | Deschutes Willamette | Bend Eugene | 19,240 | 19,240 | Straddles the summit of the Cascade Mountains. Includes snow-capped Diamond Peak, 8,750 feet elevation, and 33 lakes. Occasional small mountain meadows adjacent to the lakes. |
| | | | 16,200 | 16,200 | |
| | | | 35,440 | 35,440 | |
| Eagle Cap | Wallowa-Whitman | Baker | 220,280 | 216,250 | Embraces some of the highest peaks and best fishing waters in eastern Oregon. Many geological formations. Elk, deer, bear, and lesser wildlife species are common. |
| Gearhart Mountain | Fremont | Lakeview | 18,709 | 18,709 | Spectacular "Gearhart Notch," rock palisades, good hunting and fishing. All local timber types are represented on the slopes. |

³ Gila Primitive Area partially reclassified in 1953 as wilderness, but some of the Primitive Area remained in primitive status.

TABLE 10.—*National Forest units of the National Wilderness Preservation System, January 1, 1965—Continued*

| OREGON—Continued | | | | | |
|--------------------------|-------------------------------|-------------------------|--------------|---------|---|
| Name of wilderness | National Forest | Forest headquarters | Area (acres) | | Special features |
| | | | Gross | Net | |
| Kalmiopsis | Siskiyou | Grants Pass | 78,850 | 78,850 | Rough, steep mountainous area 500 to 5,000 feet in elevation. Noted for unusual plants and trees, including Kaliopsis leachiana and seventeen species of conifers. Abundant wildlife and good fishing. |
| Mountain Lakes | Winema | Klamath Falls | 23,071 | 23,071 | Mountain lakes within a bowl formed by eight prominent peaks. Elevations range from 5,000 to 7,950 feet. Abundant wildlife and good fishing. |
| Mount Hood | Mount Hood | Portland | 14,160 | 14,160 | Occupies the high country north and west of the summit of famous Mt. Hood. Outstanding examples of alpine meadows and living glaciers surround the peak. |
| Mount Washington | Deschutes Willamette | Bend Eugene | 8,625 | 8,625 | Straddles the summit of the Cascade Mountains. Includes snow-capped Mt. Washington, Little Belknap and Belknap Craters. Vast lava beds of recent origin, open glades and varied alpine timber types. |
| | | | 38,030 | 38,030 | |
| | | | 46,655 | 46,655 | |
| Strawberry Mountain | Malheur | John Day | 33,653 | 33,004 | Occupies the most rugged area in the John Day country. Seven high mountain lakes, alpine meadows, unique rock formations, and varied timber types. |
| Three Sisters | Deschutes Willamette | Bend Eugene | 59,875 | 59,875 | Includes the Three Sisters Mountains. Numerous peaks and glaciers, among them Collier glacier, Oregon's largest, on North Sister. Area contains 111 lakes. |
| | | | 136,833 | 136,833 | |
| | | | 196,708 | 196,708 | |
| WASHINGTON—583,196 acres | | | | | |
| Glacier Peak | Mount Baker Wenatchee | Bellingham Wenatchee | 213,100 | 212,850 | Outstanding for its many glaciers, numerous lakes, and alpine scenery. Glacier Peak is the central attraction. More than 30 peaks rise (up to 8,000 feet) above intervening valleys. |
| | | | 254,405 | 245,255 | |
| | | | 458,505 | 458,105 | |
| Goat Rocks | Gifford Pinchot Snoqualmie | Vancouver Seattle | 59,740 | 59,740 | Extremely precipitous peaks. Glaciers, several large lakes, and great profusion of mountain flora. Mountain goats abundant. |
| | | | 22,940 | 22,940 | |
| | | | 82,680 | 82,680 | |
| Mount Adams | Gifford Pinchot | Vancouver | 42,411 | 42,411 | Largely above timberline; spectacular "Around the Mountain" trail. |
| WYOMING—1,812,012 acres | | | | | |
| Bridger | Bridger | Kemmerer | 383,300 | 383,300 | In the Wind River Range. Elevations from 8,500 to 13,785 feet on Gannett Peak, the highest in Wyoming. Massive granite outcrops. Hundreds of lakes and picturesque streams provide excellent fishing. Noted for mountain climbing and live glaciers. |
| North Absaroka | Shoshone | Cody | 359,700 | 359,700 | Includes glaciers, natural bridge, standing petrified trees. Excellent hunting and fishing. |
| South Absaroka | Shoshone | Cody | 506,300 | 505,552 | Fishhawk Glacier; deep, straight-walled canyons. Back-country pack horse trips. |
| Teton | Teton | Jackson | 563,500 | 563,460 | Region of high plateaus, large valleys, and mountain meadows, easily traversed. Includes Two Ocean Pass, where Two Ocean Creek divides and sends its water to the Pacific and to the Atlantic. Noted for elk hunting and fishing. Summer range for Jackson Hole elk herd. |

TABLE 11.—*National Forest Primitive Areas, January 1, 1965*

| ARIZONA—250,936 acres | | | | | |
|------------------------------|--------------------------------|-----------------------------------|-------------------|-------------------|---|
| Name of Primitive Area | National Forest | Forest headquarters | Area (acres) | | Special features |
| | | | Gross | Net | |
| Blue Range ¹ | Apache | Springerville | 181,566 | 180,139 | Traversed by the Mogollon Rim with spruce and fir in the high country above and ponderosa pine in the broken country below. Big game is abundant. |
| Mount Baldy | Apache | Springerville | 7,400 | 7,400 | On northeast slope of Mt. Baldy at the head of the West Fork of Little Colorado River. Elevation to 11,496 feet. |
| Pine Mountain | Prescott Tonto | Prescott Phoenix | 8,530 | 8,530 | Moderately rough terrain along Verde Rim. Big-game hunting good but difficult because of heavy cover and steep canyons. |
| | | | 8,970 | 8,915 | |
| | | | 17,500 | 17,445 | |
| Sycamore Canyon | Coconino Kaibab Prescott | Flagstaff Williams Prescott | 22,305 | 21,207 | Includes a good representation of the canyon types of flora and fauna of northern Arizona. Spectacular geological formations. |
| | | | 5,950 | 5,807 | |
| | | | 18,975 | 18,938 | |
| | | | 47,230 | 45,952 | |
| CALIFORNIA—563,152 acres | | | | | |
| Aqua Tibia | Cleveland | San Diego | 26,760 | 25,995 | California's southernmost classified area. Contains unusual unburned virgin brush type. |
| Desolation Valley | Eldorado | Placerville | 41,383 | 41,343 | Extremely rough, rugged and alpine in every respect. Elevations from 6,500 to 10,020 feet. |
| Devil Canyon- Bear Canyon | Angeles | Pasadena | 35,267 | 35,267 | Area of deep canyons 40 miles by road from Los Angeles. |
| Emigrant Basin | Stanislaus | Stanislaus | 98,043 | 97,020 | Includes many lakes, fine fishing, high granite topography. |
| High Sierra | Sequoia Sierra | Porterville Fresno | 7,040 | 7,040 | Extremely rough mountainous area, possibly the most truly wild in California. Includes Tehipite Valley, which approaches the scenic scale of Yosemite Valley. Great variety of vegetation and life zones. Monarch Divide is rough terrain with few travel routes. |
| | | | 5,960 | 5,960 | |
| | | | 13,000 | 13,000 | |
| Salmon Trinity Alps | Klamath Shasta-Trinity | Yreka Redding | 34,556 251,200 | 28,576 194,724 | A region of scenic beauty, including granite peaks, many alpine lakes, and numerous streams teeming with trout. |
| | | | 285,756 | 223,300 | |
| San Rafael | Los Padres | Santa Barbara | 74,990 | 74,458 | Embraces main range of San Rafael Mountains. |
| Ventana | Los Padres | Santa Barbara | 54,857 | 52,769 | Area of low elevation but rugged terrain. |
| COLORADO—554,283 acres | | | | | |
| Flat Tops | White River | Glenwood Springs | 117,800 | 117,800 | Rolling, rock-rimmed plateau dotted with ponds. Summer range for the noted White River migratory deer and elk herds. |
| Gore Range- Eagle Nest | Arapaho White River | Golden Glenwood Springs | 32,400 | 32,379 | Spectacular knife ridges and pinnacles of the Gore Range are superlative rock-climbing terrain. |
| | | | 28,875 | 28,825 | |
| | | | 61,275 | 61,204 | |
| San Juan | San Juan | Durango | 240,000 | 238,080 | The Needle Mountains challenge rock climbers from all States. The San Juans abound in wildlife. Includes a Grizzly Bear Management Area. Large expanses without trails. |
| Uncompahgre | Uncompahgre | Delta | 69,253 | 53,252 | Extremely rugged mountains. Lakes and waterfalls. Wildlife is varied and abundant. |

¹ Area is also in New Mexico.

TABLE 11.—*National Forest Primitive Areas, January 1, 1965—Continued*

| COLORADO—Continued | | | | | |
|------------------------------|---------------------------------------|--------------------------------------|---|---|--|
| Name of Primitive Area | National Forest | Forest headquarters | Area (acres) Gross Net | | Special features |
| Upper Rio Grande | Rio Grande | Monte Vista | 56,600 | 56,600 | Adjoins the San Juan Primitive Area along the Continental Divide at the headwaters of the Rio Grande. Noted for trout fishing. |
| Wilson Mountains | San Juan Uncompahgre | Durango Delta | 9,600 17,747 <u>27,347</u> | 9,600 17,747 <u>27,347</u> | Includes 5 mountains and 2 major peaks of the Wilson Range. Large and small game in considerable numbers. |
| IDAHO—1,642,388 acres | | | | | |
| Idaho | Boise Challis Payette Salmon | Boise Challis McCall Salmon | 226,778 74,670 689,712 241,584 <u>1,232,744</u> | 223,996 74,293 685,336 240,951 <u>1,224,576</u> | Rugged, scenic, and mountainous with towering peaks and deep canyons. Embraces the Middle Fork of Salmon River, noted for float boating and fishing. Excellent hunting. Large herds of deer and elk. Bighorn sheep common along the river. |
| Salmon River Breaks | Bitterroot Nezperce | Hamilton, Mont. Grangeville | 122,500 94,685 <u>217,185</u> | 122,500 94,370 <u>216,870</u> | Good hunting and fishing. More than 40 miles of frontage on the Salmon River. Rugged terrain and beautiful scenery. Adjoins Idaho Primitive Area. |
| Sawtooth | Boise Challis Sawtooth | Boise Challis Twin Falls | 144,300 7,900 48,742 <u>200,942</u> | 144,300 7,900 48,742 <u>200,942</u> | Scenic terrain featuring the Sawtooth Mountains. Numerous deep gorges and glacial basins, 170 alpine lakes. Fishing good to excellent. Noted for wildlife—deer, elk, mountain goat, bear, mountain lion, small game. |
| MONTANA—417,140 acres | | | | | |
| Absaroka | Gallatin | Bozeman | 64,000 | 64,000 | High mountain area, mainly wooded. Lofty peaks. Very good fishing; fair hunting, especially for moose. |
| Beartooth | Custer Gallatin | Billings Bozeman | 175,000 55,000 <u>230,000</u> | 175,000 55,000 <u>230,000</u> | Rugged high mountain area. Includes Granite peak (highest in Montana) and Grasshopper Glacier. |
| Mission Mountains | Flathead | Kalispell | 75,500 | 73,340 | High mountainous area of alpine lakes and peaks, containing glaciers and unique glacial evidence. Grizzly bear and mountain goat plentiful. |
| Spanish Peaks | Gallatin | Bozeman | 50,00 | 49,800 | Wild, moderately rough topography. Outstanding fishing. |
| NEW MEXICO—335,424 acres | | | | | |
| Black Range | Gila | Silver City | 169,984 | 169,196 | Rough, forested terrain. Good trout fishing and hunting, including the best deer and bear hunting in New Mexico. |
| Blue Range ² | Apache | Springerville, Ariz. | 36,598 | 36,598 | Traversed by the Mogollon Rim with spruce and fir in the high country above and ponderosa pine in the broken country below. Big game is abundant. |
| Gila ³ | Gila | Silver City | 132,788 | 129,630 | Topography rough to precipitous. Many deep box canyons. Good hunting and trout fishing. |

² Area is also in Arizona.³ Gila Primitive Area partially reclassified in 1953 as wilderness, but some of the Primitive Area remained in primitive status.

TABLE 11.—*National Forest Primitive Areas, January 1, 1965—Continued*

| OREGON—86,700 acres | | | | | |
|------------------------------|-------------------------|------------------------|--------------|---------|--|
| Mount Jefferson | Deschutes | Bend | 25,710 | 25,710 | Snow-capped Mt. Jefferson, 10,495 feet, second highest peak in Oregon. Perpetual glaciers and Three Fingered Jack are the main features of this Cascade summit area. |
| | Mount Hood | Portland | 3,470 | 3,470 | |
| | Willamette | Eugene | 57,520 | 57,520 | |
| | | | 86,700 | 86,700 | |
| UTAH—240,717 acres | | | | | |
| Name of Primitive Area | National Forest | Forest headquarters | Area (acres) | | Special features |
| | | | Gross | Net | |
| High Uintas | Ashley Wasatch | Vernal | 166,794 | 166,794 | The High Uinta Mountains, ranging from 8,000 to 13,449 feet, are the highest in Utah and the only major east-west range in the United States. A wild, picturesque region, rich in scenic, geological, and biological interest. Noted for its small lake fishing in over 250 lakes. |
| | | Salt Lake | 73,923 | 73,923 | |
| | | City | 240,717 | 240,717 | |
| WASHINGTON—801,000 acres | | | | | |
| North Cascade | Mount Baker Okanogan | Bellingham | 434,200 | 434,200 | An area to satisfy the demands of the most strenuous wilderness seeker, where he can travel for months without retracing his steps. |
| | | Okanogan | 366,800 | 366,800 | |
| | | | 801,000 | 801,000 | |
| WYOMING—586,000 acres | | | | | |
| Cloud Peak | Bighorn | Sheridan | 137,000 | 137,000 | The glacial sculpture of the Bighorn Range left near-vertical walls 1,000 to 5,000 feet high. Numerous lakes and remnants of glaciers near Cloud Peak and Blacktooth Mountain. |
| Glacier | Shoshone | Cody | 177,000 | 177,000 | Extremely rugged topography. Includes Fremont Peak, innumerable alpine lakes, and some of the largest living glaciers in the United States. |
| Popo Agie | Shoshone | Cody | 70,000 | 70,000 | Extremely rough topography along the Continental Divide. Contains 75 lakes; rich in historical lore. |
| Stratified | Shoshone | Cody | 202,000 | 202,000 | A region of narrow valleys and broad, flat-topped mountains, built up of lava flow. Rich in petrified forest remains. Abundant game. |



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